Bulletin

WEST CHESTER STATE COLLEGE

WEST CHESTER, PENNSYLVANIA

GRADUATE STUDIES

CATALOGUE NUMBER
1965-1966 SESSIONS

WEST CHESTER STATE COLLEGE

IS ACCREDITED BY

THE MIDDLE STATES ASSOCIATION OF COLLEGES

AND SECONDARY SCHOOLS,

THE NATIONAL COUNCIL FOR ACCREDITATION,

OF TEACHER EDUCATION,

THE AMERICAN ASSOCIATION FOR HEALTH,

PHYSICAL EDUCATION, AND RECREATION,

AND THE

NATIONAL ASSOCIATION OF SCHOOLS OF MUSIC

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Bulletin

Graduate Studies

Leading to the

Master of Education Degree

1965 - 1966 SESSIONS

CATALOGUE NUMBER
VOL. 93 No. 4

WEST CHESTER STATE COLLEGE
WEST CHESTER, PENNSYLVANIA

CALENDAR 1965 - 66
GRADUATE STUDIES

June 5	(Sat.) (8:30-11:00 A.M.)	Registration, Pre-Session
June 7		Classes Begin
June 25		Classes End
June 28	(8:30 A.M.-3:30 P.M.)	Registration, Regular Session
June 29	(8:00 A.M.)	Classes Begin
August 6		Classes End
August 9	(8:30 A.M.-3:30 P.M.)	Registration, Post Session
August 10	(8:00 A.M.)	Classes Begin
August 27		Classes End
September 11	(8:30-11:30 A.M.)	Registration, Fall
September 13		Classes Begin
November 23	(Close of Classes)	Thanksgiving Recess Begins
November 29	(8:00 A.M.)	Thanksgiving Recess Ends
December 18	(Close of Classes)	Christmas Recess Begins
January 3	(8:00 A.M.)	Christmas Recess Ends
January 21		Semester Ends
January 22	(8:30-11:30 A.M.)	Registration, Spring
January 24		Classes Begin
February 19	(Close of Classes)	Washington's Birthday
February 23	(8:00 A.M.)	Classes End
March 19	(Close of Classes)	Spring Recess
March 28	(8:00 A.M.)	Spring Recess Ends
April 7	(Close of Classes)	Easter Vacation
April 12	(8:00 A.M.)	Easter Vacation Ends
May 19 to 26		Final Exams Begin
May 28		Alumni Day
May 29		Commencement

SUMMER SESSION
1966

June 4	(Sat.) (8:30-11:30 A.M.	Registration, Pre-Session
June 6 to 24		Classes, Pre-Session
June 27	(Mon.) (8:30-11:30 A.M. — 1:30-3:30 P.M.)	Registration, Summer Session
June 28	(Tues.) (8:00 A.M.)	Classes Begin
August 5		Classes End
August 8	(Mon.) (8:30-11:30 A.M. — 1:30-3:30 P.M.)	Registration, Post Session
August 9	(Tues.)	Classes Begin
August 26		Post Session Ends

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This bulletin is designed to acquaint prospective graduate students with all information pertinent to the program. Information has been arranged in the order in which questions are normally asked. By checking the table of contents below, the reader should be able to find answers to all major questions.

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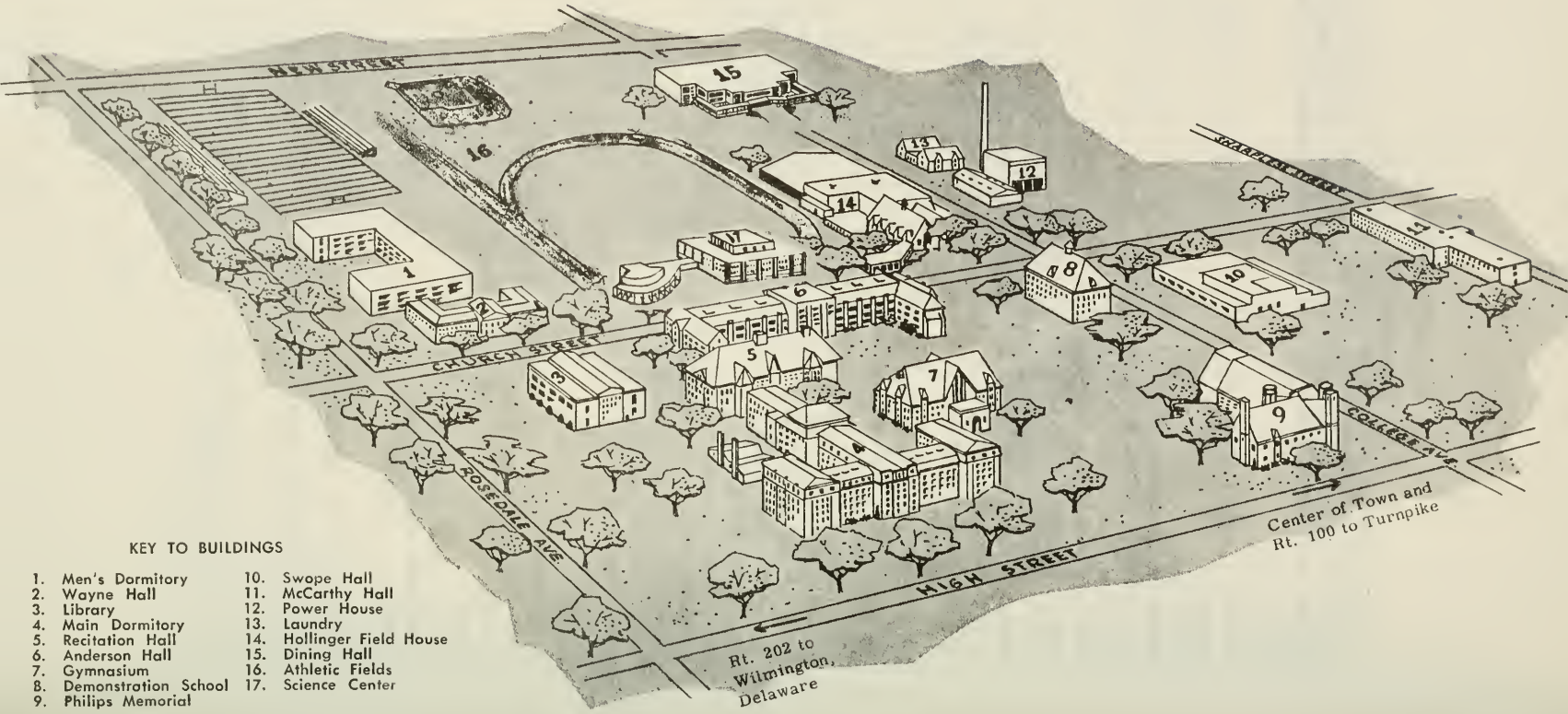
WEST CHESTER STATE COLLEGE CAMPUS



KEY TO BUILDINGS

1. Men's Dormitory
2. Wayne Hall
3. Library
4. Main Dormitory
5. Recitation Hall
6. Anderson Hall
7. Gymnasium
8. Demonstration School
9. Philips Memorial
10. Swope Hall
11. McCarthy Hall
12. Power House
13. Laundry
14. Hollinger Field House
15. Dining Hall
16. Athletic Fields
17. Science Center

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OBJECTIVES OF THE GRADUATE PROGRAM

The graduate program has one major purpose: to increase the competence of the individual's academic discipline and/or professional education.

This program will:

1. Permit the teacher to earn the Master's Degree without interference with normal professional duties.

2. Permit the in-service teacher to secure permanent certification and to extend the present certification.

3. Provide the in-service teacher with the opportunity to improve his academic or professional position.

4. Provide students with an opportunity to pursue graduate study under well trained and experienced teachers.

5. Provide courses for professional growth for those who do not choose to attain the Master's Degree.

Programs are offered in elementary, health and physical education, music, biology, English, foreign language (French, German, and Spanish), geography, mathematics, physical science, and social science. Programs in Chemistry and Physics are being planned for the near future.

DIVISION OF GRADUATE STUDIES

Graduates of fully accredited colleges and universities may pursue courses of study leading to the Master's Degree in the areas of elementary education, secondary education, health and physical education, and music education. A student majoring in secondary education may choose a field of specialization in biology, English, foreign language, geography, mathematics, physical science, or social science. All inquiries concerning graduate study should be directed to the Director of Graduate Studies.

THE GRADUATE STUDIES PROGRAM AT WEST CHESTER

The present program was authorized by the State Board of Higher Education of the Commonwealth of Pennsylvania, effective on September 1, 1959.

The Master's Degree is awarded upon successful completion of all requirements, and because these vary from one curriculum to another, the student should check carefully the requirements listed under the department in which he is enrolled.

ADMINISTRATION

The graduate program is under the direction of the administrative officers of the College, the Academic Council of the College, the Graduate Council, and the administrative officers of the graduate program.

The Graduate Council performs the following functions: It establishes all major policies for the administration of the program; reviews all applications for admission, requests for special consideration, and recommendations of the major departments; and acts as the Executive Council for the college administration on all matters related to the graduate program.

The administrative officers of the graduate studies are the Director of Graduate Studies and the individual department chairmen or co-ordinators of the graduate program. The faculty advisors in the graduate program function directly under their respective department chairmen. Graduate students having problems in their major field should consult first their advisors who, in turn, consult with the department chairmen or co-ordinators involved.

ADMISSION TO THE DIVISION OF GRADUATE STUDIES

The Division of Graduate Studies admits applicants who produce evidence of graduation from a college or university accredited by its national, regional, and professional accrediting agencies. Applicants' undergraduate records must also indicate a potential for success at the graduate level.

The Director of Graduate Studies may admit students to the Division of Graduate Studies for varying purposes, among them:

1. To qualify for the Master's Degree
2. To meet certification requirements
3. To establish credit for other reasons
4. To gain personal growth without credit (Audit)

Application forms and bulletins are available from the Graduate Office.

ADMISSION REQUIREMENTS

Applicants for admission to Graduate Studies will be identified as degree or non-degree students. Regardless of this identification, the applicant should initiate his application for graduate study by writing directly to the Director of the Graduate Program. He should then return all forms and produce all transcripts as early as possible. These must be completed, however, prior to the registration date of the session in which the student wishes to enroll.

I. *Applicants for Degree Studies*

The applicant must:

A. Make formal application to the Division of Graduate Studies.

B. Hold an earned Bachelor's Degree from a college or university accredited by national and regional accrediting associations or by the appropriate accrediting agency.

C. Submit transcripts of graduate credit earned at other accredited colleges and universities.

D. Obtain appropriate scores of the Graduate Record Examination which will serve as the qualifying examination and for guidance.

E. Have a minimum average of 2.5 in undergraduate study and a minimum average of 2.75 in undergraduate courses in the major field. (Averages are derived in the 4.0 system in which A equals 4.0).

F. Evidence academic, personal and professional qualities deemed acceptable by the administrators of the Graduate Program and the department concerned and present a satisfactory health record.

G. Have a personal interview. It is recommended that each applicant be interviewed by a representative from his major graduate field.

H. Apply for admission to degree candidacy before he has accumulated fifteen (15) semester hours of graduate credit. The first five (5) courses taken should include the three courses required for all curricula and two courses in the major field of interest.

I. Pay an application fee of $12 (twelve dollars) to West Chester State College.

J. Submit the names and addresses of at least two references, one of whom can attest to the professional promise and personal character of the applicant.

II. *Applicants for Non-Degree Studies*

A. Applicants for Credit Work

(An applicant for credit work is one who desires to take courses for credit toward certification or for some other valid reason.)

The applicant must:

1. Make application for credit work.
2. Achieve a satisfactory score in the Graduate Record Examination.
3. Be able to demonstrate his academic competence to the chairman of the major department and the Director of Graduate Studies.
4. Show evidence of prerequisite undergraduate work of creditable quality.
5. Have personal interviews, evidence of professional promise, and a satisfactory health record.
6. Submit two transcripts of undergraduate record. (These must be official copies bearing the college seal.)

B. Special Students

A special student is one who does not fall within any of the above categories. Instances of Special students are:

1. The student who is taking work for his own edification.
2. The student who is undecided on his final goal.
3. The student who is taking work to be transferred to another institution.
4. The student who has a Master's Degree and is taking graduate work.

C. Auditors (non-credit)

An auditor is one who, as the term implies, takes courses as a listener. No graduate credit of any type will be given for courses audited. He is required to pay the same fee as those who are taking courses for credit.

A student will be admitted as an auditor subject to the approval of the department chairman.

A student who registers to take a course for credit may change his status to that of an auditor if he makes this request in writing to the Director of Graduate Studies prior to the sixth meeting of the class.

III. *Applicants for Advanced Standing*

An applicant for advanced standing is one who desires to transfer credits from another graduate school.

Such credits will be honored under the following conditions:

1. The credits must have been earned at an approved graduate school.
2. The maximum number may not exceed six.
3. The transfer course grades must be B or better.
4. The courses involved must be essentially the same as graduate courses offered at this institution.
5. The college will accept in transfer only courses taken at other approved graduate schools or courses taught by regular members of the full-time faculty of other approved graduate schools at off-campus extension centers.

(All requirements beyond the stipulated maximum of six semester credits must be satisfied at this institution.)

PLEASE NOTE: Applicants failing to qualify as degree candidates become non-degree students. After they have demonstrated competence by earning a B average in the first five graduate courses (two of which must be in the major field of concentration), they may reapply to become degree candidates. (Such admission is not automatic.)

SUMMARY OF REQUIREMENTS FOR THE MASTER'S DEGREE

The Master's Degree will be granted upon:

1. Unrestricted admission to candidacy for the Degree.
2. Submission and approval of the professional research thesis in the thirty-credit program or satisfactory completion of the thirty-four credit program.
3. Completion of all graduate courses with the grade of C or better, and with an over-all quality point average of 2.75 (B).
4. Satisfactory performance on a final oral and/or written comprehensive examination conducted by the student's advisory committee in the field of specialization.
5. Completion of a minimum of one year of successful teaching experience with at least a "satisfactory" rating assigned by the administrative officer responsible for the supervision of the instructional activities of the Master's Degree in Education candidate. Other experience in lieu of this requirement must be approved by the Graduate Council.

COURSE REQUIREMENTS

In order to obtain a degree of Master of Education, the student must complete a minimum of thirty (30) semester hours of credit in the Thesis Program or thirty-four (34) semester hours of credit in the Non-Thesis Program. The student, however, should not think of the Master's Degree in terms of semester credits. He should think, rather, in terms of meeting the standards established by the Graduate Council and by his major department.

The requirements stated below are the broad general requirements established by the Graduate Council. In addition to these requirements, each department has individual requirements. The student, therefore, should first familiarize himself with the requirements below. Then he should turn to the specific section in this bulletin which treats the requirements established by his major department.

				Semester Credits
I.	*Required Courses — All Curricula*			6
	A. Hum	500	Humanities	2
	B. Res	500	Methods and Materials of Research (This course is Mus 500, Elem. Ed. 500, Sec. Ed. 500, HEd 500, Mat 500, or Ssc 500)	2
	C. Edu	510	Educational Foundations	2

*THESIS PROGRAM

II.	*Area of Specialization*	19-21
	A. Required Courses in Major Field	
	B. Electives Chosen Under Advisement	
III.	*Research*	3-5
	A. Thesis	3
	B. Seminar or Supporting Electives	0-2

*NON-THESIS PROGRAM

II.	*Area of Specialization*	26-28
	A. Required Courses in Major Field	
	B. Electives Chosen Under Advisement	
III.	*Research* (See Major Dept. Research Requirements)	0-2
	A. Research Report	
	B. Seminar or Supporting Electives	

Upon approval of the student's major department, the candidate for the Master's Degree may pursue a program of thirty-four semester credits in lieu of the Thesis Program stated above. If the major department approves a thirty-four hour program, however, it does so with the understanding that the student take certain courses which require specialized research papers. (*At all times it is advisable for the student to keep in contact with the Director of Graduate Studies and the advisor of the major department.)

BIOLOGY

Candidates for the master's degree in this field must meet the general course requirements stated below. In addition, they must meet the requirements established by the Department of Science which are stated after the following outline:

				Semester Credits
I.	*Required Courses (All Curricula)*			6
A.	Hum	500	Humanities	2
B.	Res	500	Methods & Materials of Research (Secondary)	2
C.	Edu	500	Educational Foundations	2

THESIS PROGRAM (30 s.c.)

II.	*Area of Specialization*	19-21
A.	Required Courses in Major Field	
B.	Electives chosen under advisement	
III.	*Research*	3-5
A.	Thesis	3
B.	Seminar or Supporting Electives	0-2

NON-THESIS PROGRAM (34 s.c.)

II.	*Area of Specialization*	26
A.	Required courses in Major Field	
B.	Electives chosen under advisement	
III.	*Research*	0-2
A.	Research Report	0-2
B.	Seminar or Supporting Electives	0-2

A thesis, at the master's level, should be based on independent laboratory research and must constitute a definite contribution to the existing knowledge of the field. As a general guide to the quality and quantity of the research, it should be of such caliber as to make it acceptable for publication in one of the major periodicals concerned with the field, even though publication per se is not one of the requirements.

A library research or essay instead of laboratory research may be undertaken by graduate students. However, in this case, the student must complete a minimum of 34 s. c. instead of the 30 s. c. required of the thesis student. In general, the library project must involve the reading of original research papers. A library report based exclusively, or even in large part on textbook information will not be acceptable.

IV. *Biology Seminar* 2 s. c.

Original research, or reviews of literature on selected topics will be presented by the students in round table discussions with graduate students and faculty participating.

Minimum requirements to be met before admission to candidacy in the field of biological science are two semesters of college chemistry including one semester of organic chemistry, two semesters of college biology or general botany, and general zoology with laboratory experience. All undergraduate deficiencies must be met, prior to filing for degree candidacy.

A program of graduate courses in biological science must be selected from the electives listed below.

Required			*Semester Credits*
Bio	524	Experimental Biology I	3
Bio	591	History of Biology	3
Electives			
Bio	511	Systematic Botany	3
Bio	512	Plant Growth	3
Bio	514	Plant Pests and Diseases	3
Bio	516	Physiology of Plants	3
Bio	522	Man and Wildlife-Ecology and Conservation	3
Bio	523	Resource Materials in Elementary Curriculum	3
Bio	525	Experimental Biology II	3
Bio	526	Biochemistry I and II	3 or 6
Bio	530	Genetic Theory	3
Bio	532	Experimental Genetics	3
Bio	533	Experimental Embryology I and II	3 or 6
Bio	539	Insect Morphology	3
Bio	540	Medical Entomology	3
Bio	541	Economic Entomology	3
Bio	542	Animal Ecology	3
Bio	543	Freshwater Biology	3
Bio	544	Vertebrate Dissection	3
**Bio	545	Developmental Anatomy	3
Bio	546	Microtechnique	3
**Bio	561	Human Heredity	3
**Bio	571	Advanced Bacteriology	3
Bio	572	Cytology	3
Bio	573	Histology	3
Bio	574	Parasitology	3
Bio	575	Mycology: Morphology of Fungi	3
Bio	576	Physiology of Fungi	3
Bio	595	Elementary Science Curriculum and Instruction	3
Bio	599	Research Seminar	2
Bio	600	Library Report or Essay	1
Bio	610	Thesis	3

** Recommended for graduate students in Health and Physical Education.

EDUCATION

The Department of Education offers professional courses for students of all curricula. In this capacity, it will offer the electives listed below.

For students majoring in elementary education, however, the Department of Education has constructed the specific curriculum which follows the general electives.

All students majoring in elementary education should consider the Department of Education as their major department. All elementary education majors will be assigned to an advisor in the Department of Education.

Electives			*Semester Credits*
Edu	502	Principles of Curriculum Development in the Secondary Schools	2
Edu	506	The Junior High School	2
Edu	508	The Core Curriculum	2
Edu	509	Contemporary Teaching Trends	2
Edu	520	Comparative Education	3
Edu	525	The Teacher and Administrative Leadership	2
Edu	526	Programmed Instruction	2

			Semester Credits
Edu	528	Production of Projected Still Materials	2
Edu	529	Production of Non-projected Materials	2
Edu	530	Selection and Effective Utilization of A-V Materials	3
Edu	532	Photography for Teachers	3
Edu	533	Television in Education	2
Edu	534	Seminar in Instructional Materials	2
Edu	535	Organization and Administration of the Audio-Visual Program	3
Edu	540	In-Service Education Seminar	2
Edu	541	Creative Teaching	2
Edu	542	Curriculum Development for Culturally Disadvantaged Children	2
Edu	550	Advanced Educational Psychology	3
Edu	566	The Activity Program in the Secondary School	2
Edu	580	History and Philosophy of Education	3
Edu	590	School Law	2
Gui	560	Techniques in Guidance and Counseling	2
Gui	564	Homeroom Guidance	2
Gui	567	Group Guidance	2
Psy	552	Personality Development	2
Psy	554	Group Dynamics	2
Psy	557	Advanced Mental Hygiene	2

ELEMENTARY EDUCATION

Candidates for the Master's Degree with a major in elementary education are expected to be students who are or plan to become elementary school teachers, or who have other reasons for pursuing this program that are acceptable to the Department of Education. Since this degree should represent a broad knowledge of the major field, students whose undergraduate major was **not** elementary education may be required — at the discretion of the Department of Education — to take additional course work in excess of the minimum credit hour requirements.

Degree candidates in elementary education must meet the course requirements outlined below, which include the general requirements in all curricula and the specific departmental requirements. In addition, each student must be prepared to take any course deemed necessary for him by the Department of Education, either within or beyond these requirements. Students are advised to choose electives in consultation with faculty members who specialize in elementary education.

			Semester Credits
I. Required Courses			6
Hum	500	Humanities	2
Edu	500	Methods and Materials in Research (Elementary)	2
Edu	510	Educational Foundations	2
II. *Area of Specialization		Thesis Program	19-21
		Non-Thesis Program	26-28

A. Program for degree candidates whose undergraduate major was elementary education.

Required			9
Edu	504	Reading in the Content Areas	2
Edu	517	Curriculum Problems in Elementary Education	2

* Candidates for the Master's Degree with a major in elementary education must meet the requirements for a Provisional Certificate in Pennsylvania, or its equivalent, before being admitted to degree candidacy.

Semester Credits

Edu	550	Advanced Educational Psychology	2
Psy	553	Seminar in Child Development and Behavior II: The Case Study Approach	3

Electives

Thesis Program 10-12
To include at least **four** courses selected from among the elementary education electives listed below. All electives to be chosen under advisement.

Non-Thesis Program 18-20
To include at least six courses selected from among the elementary education electives listed below. All electives to be chosen under advisement.

B. Program for degree candidates whose undergraduate major was **not** elementary education. (NOTE: Thesis program is **not** recommended for these candidates.)

Semester Credits

Required 16

Edu	501	Foundations of Reading Instruction	2
Edu	504	Reading in the Content Areas	2
Edu	513	Teaching the Communication Skills	2
Edu	539	Methods and Materials of Teaching in the Content Areas	4
**Edu	550	Advanced Educational Psychology	3
**Psy	551	Seminar in Child Development and Behavior I: Aspects of Growth	3

** Should be taken early in the program.

Electives

Thesis Program 5-7
A minimum of **three** courses, to be selected under advisement, from among the elementary education electives listed below.

Non-Thesis Program 12-14
To include at least **five** courses selected from among the elementary education electives listed below. All electives to be chosen under advisement.

III. Research 3-5

Thesis Program
Thesis 3
Seminar or Supporting Electives 0-2

Non-Thesis Program
Research Report
Seminar or Supporting Electives 0-2

Electives

Group 1. All electives must be chosen under advisement. Degree candidates are advised to take a minimum of two courses from Group 1.

Art	500	Art Activities at the Elementary School Level	2
Edu	507	Social Studies Curriculum and Instruction	2
Edu	511	Unit Teaching in the Elementary School	2
Edu	536	Improving Instruction through Efficient Classroom Management	2
Eng	544	Principles and Practice in Speech Improvement	2
Eng	550	Literature for the Elementary School	2
Geo	526	Advanced Conservation of Natural Resources	2
Geo	544	Geography of South America	3
Geo	545	Geography of Europe	3
HEd	502	Elementary Physical Education Workshop	2
HEd	541	School-Community Health Education Workshop	2

			Semester Credits
HEd	542	Health Instruction in the Elementary School	2
Mat	551	Curriculum and Research in Arithmetic	2
Mus	573	Keyboard Activities for the Classroom Teacher	2
Mus	572	Vitalizing Music in the Elementary Grades	2
Mus	574	Teaching of Music in the Elementary Grades	2
Bio	523	Resource Materials in Elementary Science	3
Bio	561	Human Heredity	3
Bio	595	Elementary Science and Instruction	3
Lan	502	Fles	2
Psy	533	Seminar in Child Development and Behavior II: The Case Study Approach	2

Group 2. All electives must be chosen under advisement. Degree candidates are advised to take a minimum of two courses from Group 2.

Edu	505	Curriculum and Research in Language Arts	2
Edu	515	Meeting Individual Needs of Elementary School Children	2
Edu	517	Curriculum Problems in Elementary Education	2
Edu	519	The Kindergarten-Primary School Program	2
Edu	521	Analysis, Diagnosis and Correction of Reading Difficulties	2
Edu	523	Elementary School Organization	2
Edu	527	Audio-Visual Materials in the Elementary School Curriculum	2
Edu	530	Selection and Effective Utilization of Audio-Visual Materials	3
Edu	565	Improving Instruction through Efficient Classroom Management	2
Edu	567	Supervision in the Improvement of Instruction	2
Edu	537	Creative Expression in the Elementary School Curriculum	2
Edu	561	Guidance in the Elementary School	2
Edu	563	Measurement and Evaluation in the Elementary School	2
Edu	580	History and Philosophy of Education	3

ENGLISH

The candidate for the Master's Degree with a major in English must meet the general requirements as shown in the outline below, and he must meet the specific departmental course requirements as stated below the outline.

				Semester Credits
I.	*Required Courses (All Curricula)*			6
A.	Hum	500	Humanities	2
B.	Res	500	Methods and Materials of Research	2
C.	Edu	500	Secondary Educational Foundations	2

THESIS PROGRAM (30 s. c.)

II.	*Area of Specialization*	19-21
A.	Required Courses in Major Field	
B.	Electives chosen under advisement	
III.	*Research*	3-5
A.	Thesis	3
B.	Seminar or Supporting Electives	0-2

NON-THESIS PROGRAM (34 s. c.)

II.	*Area of Specialization*	26
A.	Required Courses in Major Field	
B.	Electives chosen under advisement	

			Semester Credits
III.	*Research*		2
	A.	Research Report	0-2
	B.	Seminar or Supporting Electives	0-2

Below are listed three groups of courses under A, B, C. Every English major student should have a minimum of one course from each group, and he must have a minimum of eight courses from the three groups if he writes a thesis — or a minimum of eleven courses from the three groups if he elects the 34-hour option. In addition, he must be prepared to take any course deemed necessary by his advisor.

Group A			
Eng	502	History of the English Language	2
Eng	511	English Literary Criticism (1800-1960)	2
Eng	512	American Literary Criticism (1800-1960)	2
Eng	514	American Literary Movements	2
Group B			
Eng	521	English Literature to Chaucer	2
Eng	522	Chaucer	2
Eng	523	Eighteenth Century Novel	2
Eng	524	British and Continental Short Story	2
Eng	525	Biography	2
Eng	526	Tudor Poetry and Prose	2
Eng	527	Stuart Literature	2
Eng	528	Milton	2
Eng	529	Victorian Prose	2
Eng	530	Victorian Poetry	2
Eng	531	Shakespeare's Predecessors in Drama	2
Eng	532	Advanced Shakespeare	2
Eng	533	Romantic Prose and Poetry	2
Group C			
Eng	534	Nineteenth Century American Prose	2
Eng	535	Twentieth Century American Writers	2
Eng	537	Emerson and Thoreau	2
Eng	538	Hawthorne and Melville	2
Eng	541	Greek and Roman Literature in Translation	2

ENGLISH SERVICE COURSES

The following courses are offered as a service to teachers. Open to anyone, they may be offered as part of the English program under certain conditions.

			Semester Credits
Eng	543	Advanced Problems in Public Speaking	2
Eng	544	Problems in Speech Correction	2
Eng	500	Literature for Elementary School	2

*FOREIGN LANGUAGES

The candidate for the Master's Degree with a major in French, Spanish or German must meet the general requirements as shown in the outline below, and he must meet the specific departmental course requirements as stated below the outline.

				Semester Credits
I.	*Required Courses (All Curricula)*			6
	A. Hum	500	Humanities	2
	B. Res	500	Methods and Materials of Research	2
	C. Edu	500	Secondary Educational Foundations	2

* The offering of this curriculum is dependent upon final approval by the Department of Public Instruction.

THESIS PROGRAM (30 s. c.)

	Semester Credits
II. *Area of Specialization*	19-21
A. Required Courses in Major Field	
B. Electives chosen under advisement	
III. *Research*	3-5
A. Thesis	3
B. Seminar or Supporting Electives	0-2

NON-THESIS PROGRAM (34 s. c.)

II. *Area of Specialization*	26
A. Required Courses in Major Field	
B. Electives chosen under advisement	
III. *Research*	2
A. Research Report	0-2
B. Seminar or Supporting Electives	0-2

Below are listed four groups of courses. Group I includes courses common to all majors in French, Spanish, or German. Every major student must have a minimum of two courses from Group I, and he must have a minimum of six courses from those in Group II, III, or IV listed under his respective language. All foreign language courses are for three semester credits, except those listed under Group I, which are 2 credit courses.

Group I

Lan	501	Linguistics	2
Lan	502	FLES	2
Lan	503	Techniques of Language Teaching	2
Lan	504	Language Laboratory Techniques	2

Group II

Fre	511	Romance Philology (French)	3
Fre	512	Explication de Texte	3
Fre	513	Phonetics	3
Fre	514	Advanced Grammar and Composition	3
Fre	520	Rabelais and Montaigne	3
Fre	521	Moliere	3
Fre	522	Voltaire and Rousseau	3
Fre	523	Proust	3
Fre	524	Gide	3
Fre	530	French Classical Tragedy	3
Fre	531	The French Novel (to the end of the 19th Century)	3
Fre	532	The 20th Century French Novel	3
Fre	533	French Lyric Poetry	3
Fre	534	The Contemporary French Theater	3

Group III

Ger	511	German Philology	3
Ger	512	German Civilization	3
Ger	513	Phonetics	3
Ger	514	Advanced Grammar and Composition	3
Ger	520	The Age of Goethe	3
Ger	521	Goethe	3
Ger	522	Schiller	3
Ger	530	German Reformation, Baroque and Pseudo-Classicism	3
Ger	531	German Literature of the 19th Century	3
Ger	532	German Drama of the 19th and 20th Centuries	3
Ger	533	Middle High German Literature	3
Ger	540	The German Short Story	3
Ger	541	Modern German Poetry	3
Ger	542	Modern German Novel	3

Group IV — *Semester Credits*

Spa	510	Advanced Spanish Phonetics	3
Spa	511	Advanced Spanish Grammar and Stylistics	3
Spa	520	Cervantes	3
Spa	530	Medieval Spanish Literature	3
Spa	531	Spanish Renaissance and Humanism	3
Spa	532	Nineteenth Century Spanish Literature	3
Spa	533	The Generation of 1898	3
Spa	540	The Picaresque Novel	3
Spa	541	The Modern Spanish Theatre	3

GEOGRAPHY

The candidate for the Master's Degree with a major in geography must meet the general requirements as shown in the outline below, and he must meet the specific departmental course requirements as stated below the outline.

Semester Credits

I. *Required Courses (All Curricula)* — 6

A.	Hum	500	Humanities	2
B.	Res	500	Methods and Materials of Research	2
			Secondary	
C.	Edu	500	Educational Foundations	2

THESIS PROGRAM (30 s. c.)

II. *Area of Specialization* — 19
A. *Required Courses in Major Field
B. Electives chosen under advisement

III. *Research* — 5
A. Thesis — 3
B. Seminar or Supporting Electives — 2

NON-THESIS PROGRAM (34 s. c.)

II. *Area of Specialization* — 2
A. *Required Courses in Major Field
B. Electives chosen under advisement

III. *Research* — 2
A. Seminar or Supporting Electives — 2

Group I. EARTH STUDIES

Geo	500	Biogeography	2
Geo	501	Geomorphology	3
Geo	502	Regional Physiography of North America	3
Geo	503	General Climatology	3
Geo	504	Regional Climatology of the Continents	3
Geo	505	Advanced Cartography	3

Group II. ECONOMIC AND POLITICAL STUDIES

Geo	520	Problems of Economic Geography	3
Geo	521	World Economic Patterns	3
Geo	522	Agricultural Geography	3
Geo	523	Advanced Conservation of Natural Resources	3

* The candidate for the master's degree in geography must select a program of courses from the elective groups listed below. A minimum of two courses from groups I, II, III and the remaining courses necessary to fulfill the general requirements, must be chosen with the approval of the faculty adviser.

			Semester Credits
Geo	524	Ethnic and Demographic Problems of Geography	2
Geo	525	Geography of Regional Planning	3
Geo	526	Urban Geography	3
Geo	527	Political Geography	2
Geo	528	Concepts of Modern Global Geography	2
Geo	529	Geographic Influences in World History	3
Group III.		*REGIONAL STUDIES*	
Geo	540	Geography of the United States	3
Geo	541	Geography of the United States in its World Relations	3
Geo	542	Geography of Canada	3
Geo	543	Geography of Mexico and Middle America	3
Geo	544	Geography of South America	3
Geo	545	Geography of Europe (Excluding the U.S.S.R.)	3
Geo	546	Geography of the Soviet Union	3
Geo	547	Geography of Asia (Excluding the U.S.S.R.)	3
Geo	548	Geography of the Pacific Lands	3
Geo	549	Geography of Africa	3
Group IV.		*SPECIAL STUDIES IN GEOGRAPHY*	
Geo	580	Seminar in Geography in Education	2
Geo	581	Seminar in Modern Philosophy of Geography	2
Geo	582	Seminar in Geographic Literature	2
Geo	583	Seminar in Geographic Writing	2
Geo	584	Seminar in Geographic Research	2
Geo	585	Geography Field Course	3
Geo	586	Area Field Studies (Courses I, II and III)	3-6
Geo	587	Geography Workshop for Teachers	3

HEALTH AND PHYSICAL EDUCATION

				Semester Credits
I.	*Required Courses*			6
A.	Hum	500	Humanities	2
B.	Res	500	Methods and Materials of Research (Health and Physical Education)	2
C.	Edu	510	Educational Foundations	2

THESIS PROGRAM (30 s. c.)

II.	*Area of Specialization*			19-21
A.	Required Courses			
HEd	530		Physiological and Psychological Bases of Motor Activity	3
HEd	550		Foundations and Principles of Health, Physical Education and Recreation	3
HEd	561		Measurement and Evaluation in Health, Physical Education and Recreation	3
B.	Electives chosen under advisement			
III.	*Research*			3-5
A.	Thesis			3
B.	Seminar or supporting electives			0-2

NON-THESIS PROGRAM (34 s. c.)

II.	*Area of Specialization*			26
A.	Required Courses in major field			
B.	Electives chosen under advisement			
	The student must include courses in the following:			
HEd	530		Physiological and Psychological Bases of Motor Activity	3

Semester Credits

HEd	550	Foundations and Principles of Health, Physical Education and Recreation	3
HEd	561	Measurement and Evaluation in Health, Physical Education and Recreation	3
HEd	562	Administrative and Supervisory Practices in Health, Physical Education and Rec.	3
HEd	570	Curriculum Development in Health and Physical Education	3
HEd	521	Administration and Supervision of Interschool and Intramural Athletics. This course may be substituted for HEd 562.	3

III. *Research* 2

A. Research Report 0-2

B. Seminar or supporting electives 0-2

Electives

HEd	501	Advanced Rhythmical Foreign Gymnastics	2
HEd	502	Elementary Physical Education Workshop	2
HEd	503	Advanced Aquatics	2
HEd	504	Dance in Education	2
HEd	510	School and Community Recreation	3
HEd	511	Field Problems in Recreation	2
HEd	512	Outdoor Education Workshop	2
HEd	520	Advanced Coaching	3
HEd	521	Administration and Supervision of Interschool and Intramural Athletics	3
HEd	530	Physiological and Psychological Bases of Motor Activity	3
HEd	531	Adaptive Physical Education Workshop	3
HEd	533	Remedial Physical Education	2
HEd	540	School Health Problems	3
HEd	541	School Community Health Education Workshop	3
HEd	550	Foundations and Principles of Health, Physical Education, and Recreation	3
HEd	560	Contemporary Problems in Health, Physical Education, and Recreation	3
HEd	561	Measurement and Evaluation in Health, Physical Education, and Recreation	3
HEd	562	Administration and Supervisory Practices in Health, Physical Education, and Recreation	3
HEd	570	Curriculum Development in Health and Physical Education	3
HEd	580	Contemporary Practices in Safety Education	3

MATHEMATICS

The candidate for the Master's Degree with a major in mathematics must meet the general requirements as shown in the outline below, and he must meet the specific departmental course requirements as stated below the outline.

Semester Credits

I. *Required Courses* 6

A.	Hum	500	Humanities	2
B.	Mat	500	Methods and Materials of Research in Math. Education	2
C.	Edu	500	Educational Foundations	2

THESIS PROGRAM (30 s. c.)

Semester Credits

II. *Area of Specialization* 19-21

A. Required courses in Major Field — Must include courses in each of the major areas of algebra, geometry, analysis, and statistics.

B. Electives chosen under advisement

III. *Research* 3-5

A. Thesis 3

B. Seminar or Supporting Electives 0-2

NON-THESIS PROGRAM (34 s. c.)

II. *Area of Specialization* 26-28

A. Required Courses in Major Field — Must include courses in each of the major areas of algebra, geometry, analysis, and statistics.

B. Electives chosen under advisement

III. *Research* 0-2

A. Research Report 0-2

B. Seminar or Supporting Electives 0-2

The candidate for a Master's Degree with a major in mathematics must select his Area of Specialization program from the courses listed below. This program must meet the approval of the faculty advisor.

Mat	503	History of Mathematics	3
Mat	512	Modern Algebra	3
Mat	513	Matrix Algebra	3
Mat	514	Theory of Numbers	3
Mat	523	Mathematical Statistics I	3
Mat	524	Mathematical Statistics II	3
Mat	532	Modern Geometry	3
Mat	533	Projective Geometry	3
Mat	535	Topology	3
Mat	541	Advanced Calculus I	3
Mat	542	Advanced Calculus II	3
Mat	545	Real Variable	3
Mat	547	Complex Variable	3
Mat	552	Seminar in Mathematics Education	2

MUSIC EDUCATION

The candidates for the Master's Degree with a major in music education must meet the general course requirements as stated below. In addition, he must meet whatever requirements the Department of Music may feel necessary in his particular situation.

Semester Credits

I. *Required Courses (All Curricula)* 6

A.	Hum	500	Seminar in Humanities	2
B.	Mus	500	Methods and Materials of Research	2
C.	Edu	500	Seminar in Educational Foundations	2

THESIS PROGRAM (30 s. c.)

II. *Area of Specialization* 19-21

A. Required Courses:

Mus	510	Current Trends in Music Education 2
Section I Music Education (Select One)		2
Section II Applied Music		4
Section III and/or IV		4

B. Electives chosen under advisement 7-9

Sections I - V .....

Semester Credits

III. *Research* 3-5
A. Thesis 3
B. Seminar or Supporting Electives 0-2

NON-THESIS PROGRAM (34 s. c.)

II. *Area of Specialization* 27
A. Required Courses
As in THESIS PROGRAM 12
B. Electives chosen under advisement 15
Sections I - V

III. *Research* 1
Mus 588 Research Seminar, and Research Report

(MUSIC EDUCATION)

Elective Courses for Music Students

SECTION I. MUSIC EDUCATION *Semester Credits*

Mus	511	Administration of Public School Music	2
Mus	512	Music Education in the Secondary School	2
Mus	513	Music Education in the Elementary School	2
Mus	514	Pedagogy of Music Theory	2
Mus	515	Marching Band Techniques and Materials	2
Mus	516	Piano Pedagogy	2
Mus	518	Vocal Pedagogy	2
Mus	519	Music Appreciation in the General Music Program	2
Mus	584	Seminar in Piano Teaching and Teaching Materials	2
Mus	585	String Literature and Pedagogy	2

SECTION II. APPLIED MUSIC

A. KEYBOARD:

Mus	541-555	Advanced Piano or Organ	1 or 2
Mus	546-9	Piano Ensemble and Master Class	1-3
Mus	581	Accompanying	2

B. VOCAL:

Mus	503	Advanced Choral Conducting	2
Mus	531-535	Advanced Voice	1 or 2
Mus	536-537	Vocal Ensemble and/or Chorus	1
Mus	538-539	Opera Workshop	2
Mus	586-7	Vocal Diction	2

C. INSTRUMENTAL:

Mus	501-502	Advanced Class Instruction in Instruments	1
Mus	504	Advanced Instrumental Conducting	2
Mus	561-565	Advanced Instruments	1 or 2
Mus	566-569	Ensemble and/or Orchestra Band	1

SECTION III. STRUCTURE AND ORGANIZATION OF MUSIC

Mus	521	Advanced Counterpoint	2
Mus	522	Advanced Composition and/or Orchestration	2
Mus	523	Advanced Band Arranging	2
Mus	528	Twentieth Century Music Styles	2
Mus	582	Form in Music	2

			Semester Credits
SECTION IV.		*LITERATURE AND HISTORY OF MUSIC*	
Mus	505	Contemporary Music	2
Mus	506	Instrumental Literature	2
Mus	507	Vocal Literature	2
Mus	508	Choral Literature	2
Mus	509	Piano Literature	2
Mus	525	Woodwind Literature	2
Mus	526	Brass Literature	2
Mus	527	History of the Opera	2
Mus	583	Music in the Baroque Period	2
Mus	591	Music in the Romantic Era	2

Elective Courses for All Students

SECTION V.			
Mus	520	Instrument (Individual Lessons)	1
Mus	530	Voice (Individual Lessons)	1
Mus	540	Piano (Individual Lessons)	1
Mus	550	Organ (Individual Lessons)	1
Mus	560	Study and Appreciation of the Opera	2
Mus	571	Music Criticism and Aesthetics	2
Mus	590	Study and Appreciation of the Symphony	2

Elective Courses for Elementary Education Students

Mus	572	Vitalizing Music in the Elementary Grades	2
Mus	573	Keyboard Activities for the Classroom Teacher	2
Mus	574	Teaching of Music Appreciation in the Elementary Grades	2

*PHYSICAL SCIENCE

The candidate for the master's degree with a major in physical science must meet the general requirements as shown in outline below and the specific departmental requirements as stated below the outline.

				Semester Credits
I.	*Required Courses (All Curricula)*			6
A.	Hum	500	Humanities	2
B.	Res	500	Methods and Materials of Research	2
			Secondary	
C.	Edu	500	Educational Foundations	2

THESIS PROGRAM (30 s. c.)

II.	*Area of Specialization*	19-21
	A. Required Courses in Major Field	
	B. Electives chosen under advisement	
III.	*Research*	3-5
	A. Thesis	3
	B. Seminar or Supporting Electives	0-2

NON-THESIS PROGRAM (34 s. c.)

II.	*Area of Specialization*	26-28
	A. Required Courses in Major Field	
	B. Electives chosen under advisement	

* The offering of this curriculum is dependent upon final approval by the Department of Public Instruction.

			Semester Credits
III. *Research*			2
A. Research Report			0-2
B. Seminar or Supporting Electives			0-2

Two semesters of general chemistry and two semesters of general physics are pre-requisites to all courses in the area of specialization. Ability to use differential and integral calculus will be a requirement for the degree.

Electives

Sci	500	Philosophy of Science	3
Sci	501	Historical Geology	3
Sci	533	Physics Demonstrations	3
Phy	503-504	Foundations of Physics	4 or 8
Phy	524	Experimental Physics	3
PSc	505	Teaching of Physics in the Secondary School	3
Che	501	Selected Topics in Physical Chemistry	3
Che	502	Valence and Molecular Structure	3
PSc	503	Teaching of Chemistry in the Secondary School	3
PSc	506	Seminar in Physical Science	3
PSc	507	Recent Advances in Physical Science	3
PSc	508	Nuclear Physics	3
PSc	510	Electronics for Teachers (2 lecture, 2 lab. hours)	3
PSc	511	Electricity for Teachers	3
PSc	512	Mechanics for Teachers	3
PSc	513	Modern Physics for Teachers	3
PSc	521	Mineralogy for the Science Teacher	3
PSc	531	Acoustics for the Science Teacher	3
PSc	532	Space Science	3
PSc	560	Workshop in Rocks and Minerals (Elementary School Teachers)	3
PSc	590	History of the Physical Sciences	3

(Any graduate course in physics or chemistry may be elected and applied to this degree.)

SOCIAL SCIENCE

The candidate for the Master's Degree with a major in social science must meet the requirements stated below.

				Semester Credits
I. *Required Courses (All Curricula)*				6
A.	Hum	500	Seminar in Humanities	2
B.	Ssc	500	Methods and Materials of Research in the Social Sciences	2
C.	Edu	510	Educational Foundations	2

THESIS PROGRAM (30 s. c.)

II. *Area of Specialization*		19-21
A. Required Courses:		
Group I: American History		6
Group II: European History		6
Group III: Social Sciences		
A: Anthropology and Sociology		2
B: Economics		2
C: Political Science		2
B. Electives as advised:		3
III. *Research*		3-5
A. Thesis		3
B. Seminar or Supporting Elective as advised		0-2

NON-THESIS PROGRAM (34 s. c.)

Semester Credits

II. *Area of Specialization* 24-26

A. Required Courses:

Group I: American History 6

Group II: European History 6

Group III: Social Sciences

A: Anthropology and Sociology 2

B: Economics 2

C: Political Science 2

B. Electives as advised: 8

III. *Research* 2-4

A. Research Report 0-2

B. Seminar or Supporting Elective as advised 0-2

Group I: American History

Course Offerings:

His	510	Colonial and Revolutionary America: 1607-1783	2
His	511	Rise of the New Nation: 1783-1850	2
His	512	Civil War and Reconstruction: 1850-1876	2
His	513	Emergence of Modern America: 1876-1919	2
His	514	United States as a World Power: 1919-present	2
His	515	Problems in American Constitutional Development	3
His	516	Recent American Diplomatic History	2
His	550A	Seminar in American History	2

Group II: European History

His	530	Problems in Medieval Civilization	3
His	531	The Renaissance	2
His	532	The Protestant Revolution	2
His	533	Dynastic Europe: 1648-1789	2
His	534	The French Revolution and Napoleonic Era: 1789-1815	2
His	535	Nationalism and Democracy: 1815-1914	2
His	536	Europe Since 1914	2
His	540	The Evolution of Modern Russia	3
His	541	Tudor and Stuart England	2
His	550B	Seminar in European History	2

Group III: Social Sciences

A. Anthropology and Sociology

Ant	530	Problems in Anthropology	3
Ant	550	Seminar in Anthropology	2
Soc	531	Social Pathology	3
Soc	532	Historical Sociology	3
Soc	533	Intergroup Relations	3
Soc	550	Seminar in Sociology	2

B. Economics

Eco	530	Economics and Public Policy	3
Eco	531	Comparative Economic Systems	3
Eco	532	History of Economic Thought	3
Eco	550	Seminar in Economics	2

C. Political Science

Psc	531	Modern Political Theory	3
Psc	532	International Relations	3
Psc	533	The American Legislative Process	3
Psc	550	Seminar in Political Science	2

Group IV: Special Studies

Eco	533	Teaching Economics in Secondary Schools	2
His	523	Contemporary World Affairs	2
His	524	Cultures of the Non-Western World	3
His	526	Workshop in World Cultures	2
Ssc	500	Methods and Materials of Research in the Social Sciences	2
Ssc	502	Methods and Materials for Teaching Social Studies	2
Ssc	550	Seminar in Contemporary European Culture (Student European Tour)	4
Ssc	590	Research Report	2
Ssc	600	Thesis	3

COURSE OFFERINGS

BIOLOGY

Semester Credits

Bio 511 *Systematic Botany* 3
Scientific methods applied to the classification of leafy and flowering plants. Observation of living specimens in the field, woods and gardens will be supplemented by lectures and herbarium work. Various systems of historical importance will be reviewed. The modern approach to experimental taxonomy will be emphasized.
Prerequisite: General college botany or basic biology and field botany.

Bio 512 *Plant Growth* 2
A comprehensive review of various theories of growth and consideration of the evidence. A study of apical meristems, secondary growth and development of reproductive parts is projected against a background of plant physiology. Experiments with plant materials will involve use of phyto-hormones and various synthetic substances known to affect growth of vascular plants.
Prerequisite: Two semesters of general college botany and a course in plant physiology or permission of the professor in charge.

Bio 514 *Plant Pests and Diseases* 3
The nature of infectious plant parasites, insects and nematodes which cause considerable damage to turf, farm crops, forest trees, ornamentals and stored grains. Several specific organisms are studied in some detail. Modern control measures are noted.
Prerequisite: Two semesters of college botany and one semester of invertebrate zoology, with laboratory experiences.

Bio 516 *Physiology of Plants* 3
Cell physiology including respiration, photosynthesis, fermentation, enzyme catalysis, auxins, and membrane phenomena will be stressed. Tropisms, mineral nutrition, water metabolism, and the translocation of solutes are additional areas of discussion and experimentation.

Bio 522 *Man and Wildlife — Ecology and Conservation* 3
Impact of man on wildlife stressing relationships and attempts at management. Field study and measurement of living systems. Biogeography. Examination of policies of private, local, county, state, and federally owned public lands. Visits to state hatcheries and propagation areas. Investigations of hunting and fishing regulations and bounty systems past and present. Preservation of our biological heritage.

Bio 523 *Resource Material in Elementary Science* 3
A course designed to acquaint the elementary school teacher with the resource material in his community and elsewhere that is essential to the curriculum of the modern elementary school. Although this course is designed primarily for elementary school teachers, it should prove profitable to administrators also.

Bio 524 *Experimental Biology I* 3
Techniques in demonstrating body functions and animal behavior. Humanely conducted operations will utilize several types of invertebrates as well as fish, frogs and rodents. These are designed to demonstrate reflexes, tropistic responses, enzymatic digestion, peristaltic movements, circulation of the blood, metabolism, normal and anomalous growth.
Prerequisite: Completion of a major field in biological science.

Semester Credits

Bio 525 *Experimental Biology II* 3

A study of the fundamental physiological processes such as nutrition, respiration, excretion, growth, reproduction, and general response to changes in environment as is seen in microscopic animals and plants.
Prerequisite: Zoology I and Botany II, or a general course in Biology.

Bio 526 *Biochemistry I and II* 3 or 6

A presentation of the biochemical changes in the organism. The use of modern techniques to determine the properties of protoplasm. A consideration of acid-base balance, Donnan equilibrium, Homeostasis, the function of carbohydrates, proteins, fats in tissues and intermediary metabolism, and the nature of enzymes. A study of digestion, the role of vitamins, nutrition, energy metabolism, the chemical composition of blood, hormones, chemical structure in relation to biological phenomenon and the problem of biochemical antagonism and detoxication mechanisms.
Prerequisites: Two semesters of college chemistry, two semesters of organic chemistry and undergraduate specialization in Biology.

Bio 530 *Genetic Theory*

Studies in the theory of mutation of genes, chromosomal mappings, chromosomal abnormalities, the principles of dominance and recessiveness multiple factors, lethal factors and their association with visibles. The nature of D.N.A. explored.
Prerequisite: Basic Biology or Zoology I and II or Botany I and II.

Bio 532 *Experimental Genetics* 3

Consideration of inheritance from the point of view of cellular biology with modern concepts of the structure and chemistry of chromosomes and the nature of the genes. Experimental work in the production of mutations in germ cells and in somatic and the effects of radiations upon tissues.
Prerequisite: Bio 530, Genetic Theory.

Bio 533 *Experimental Embryology I and II* 3-6

A comprehensive course tracing the maturation of gametes, fertilization, cleavage, differentiation, organogenesis, and development in the vertebrates. Major emphasis will be placed on such phenomena in the chick, with correlative work on the frog and pig.
Prerequisites: Zoology I, II, Comparative Anatomy is desirable.

Bio 539 *Insect Morphology* 3

A study of the internal and external structures of typical insects from laboratory dissections of specimens, and the relationship of the functions of these structures to the life history of the insect.
Prerequisite: General Entomology.

Bio 540 *Medical Entomology* 3

A study of the arthropods affecting the health of man and animals. The study includes the morphology and bionomics of insects, ticks, and mites of medical importance. Local, domestic, and foreign arthropods are considered. Local types collected.
Prerequisite: General Entomology.

Semester Credits

Bio 541 *Economic Entomology* 3

Beneficial and deleterious influences exerted by insects upon man's welfare; their identification, distribution, life histories and control. Special attention will be devoted to insects attacking crop plants, stored products, and livestock. Further study will be devoted to pollinating insects as well as the predaceous and parasitic forms utilized in biological control of organisms.
Prerequisite: Completion of a field in biological science including general entomology or invertebrate zoology and college botany courses.

Bio 542 *Animal Ecology* 3

Interrelationships of organisms and the environment including physical and biological factors. Topics for discussion and investigation will include animal distribution, procuring food, escape from enemies, surviving climatic extremes, reproductions and community organizations. Field trips to study a variety of terrestrial and freshwater habitats will be required.
Prerequisite: Two semesters of college zoology or general biology.

Bio 543 *Freshwater Biology* 3

Habitats, morphology and taxonomy of our local freshwater plants and animals. Work in the course will include classroom lectures and dissection, field trips and a minor problem. Each student must present at a seminar meeting a complete report of some individual research project.
Prerequisite: College zoology, college botany, and at least one field course in biology.

Bio 544 *Vertebrate Dissection* 3

Practical methods of examining bodies of vertebrate animals to observe differences in the structure of organs and organ systems. Functions of each will be discussed. An effective lecture-demonstration at a final seminar is a required outcome.
Prerequisite: College zoology and vertebrate anatomy.

Bio 545 *Developmental Anatomy* 3

A review of the anatomy of the human reproductive systems and the fundamentals of human development. Students make a survey of current literature dealing with the origin of sperms and ova and the sexual cycles. The establishment of several functional systems of the human body is studied, with constant reference to those in chicks and monkeys. A term paper is required which shall be presented to the class group.
Prerequisite: Anatomy, physiology and embryology courses.

Bio 546 *Microtechnique* 3

A course designed to acquaint the student with the procedures involved in the production of microscope slides. Techniques of preparing whole mounts, microtome sections and serial sections will be covered. Both plant and animal materials will be used.
Prerequisites: Botany I, II, Zoology I, II.

Bio 561 *Human Heredity* 3

The in-born qualities of human beings and their genetic basis. This subject deals with both physical and mental aspects, normal and sub-normal, including such topics as linkage, crossing-over, mutations, nature of the genes, multiple alleles, multiple genes, incomplete dominance, lethal genes, relationship to heredity and environment, and effects of radio-active substances.
Prerequisite: A course in general genetics or two semesters of a biological science.

Semester Credits

Bio 571 *Advanced Bacteriology* 3

Diagnostic procedures and minor problems in microbiology, immunology and immunochemistry. The fields of medical mycology, virology and use of antibiotics will be examined.
Prerequisite: Completion of a field in science, including two semesters of chemistry and an undergraduate course in bacteriology or microbiology.

Bio 572 *General Cytology* 3

Techniques of preparing cells and tissues for microscopic examination. The physical properties, chemical structure and metabolism of cells will be studied, using both plant and animal tissues.
Prerequisite: Completion of a field in biological science; General Cytology 402.

Bio 573 *Histology* 3

The study of animal tissues, involving examination of the structure and physiology of basic types. Relationships of tissues to cells and to organ systems will be studied. Laboratory work will be required for preparation of whole mount, smears, and tissue sections for microscopic study. Some histological pathology of major organs and systems will be included. A few seminar periods will be scheduled.
Prerequisites: Anatomy and Physiology or equivalent Biology courses.

Bio 574 *Parasitology* 3

A consideration of the anatomy, physiology, life history, and habits of representative parasites of man and his domesticated animals. Means of prevention, detection, and conrol are emphasized. Special attention is given to those forms likely to be encountered in the area of the College.
Prerequisites: Zoology I and II.

Bio 575 *Mycology: Morphology of Fungi* 3

Various classifications of fungi, the keys used to identify, the structures and shapes of the classical examples, their taxonomy and their reproductive modifications will be studied along with the generic and specific names in the botanical rules of nomenclature. A general study of all the groups will be as a brief survey of the entire Subdivision of the Thallophytes — the Fungi. A detailed study of representatives of the various classes will constitute a major part of the first semester's work of perhaps 3 or 4 lecture classes and then one laboratory period, devoting the entire 3 hours to laboratory study of actual living materials or dried exsiccati of herbarium specimens.
Prerequisite: General college botany, two semesters of college chemistry, and a course in bacteriology or microbiology.

Bio 576 *Physiology of Fungi* 3

This portion would enlarge on the first semester by going into the metabolic activities of the fungi, some of the products produced industrially, the medical slant of common pathogenic molds, the plant disease field touched in relation to phytopathological fungi and other practical applications as logical or typical types to use as examples in teaching fields. This would encompass the physiology of growth, cell enlargement, cell multiplication, reproduction from the sexual perfect stages as well as asexual (imperfect) stages. From the agricultural pest point of view, an effort would be made not to overlap with or encroach into the course on Plant Pests and Diseases (Sci 512) or on Economic Entomology (Sci 541), although some of the disciplines could

and would be common ground. Spore production, dissemination, germination, au naturel as well as in vitro would be discussed along with a mention of fossil fungi and relationships of families from a genetic and historical point of view.
Prerequisite: General college botany, two semesters of college chemistry, and a course in bacteriology or microbiology.

Semester Credits

Bio 591 *History of Biology* 3
Great discoveries in the field of biology and related literature from that of Theophrastus to the present should be evaluated. Emphasis will be placed on the philosophical implications of these discoveries and the economic changes which have resulted from the major discoveries.
Prerequisites: College zoology, college botany and a field of at least 24 semester hours in science.

Bio 595 *Elementary Science Curriculum and Instruction* 3
Methods and materials used in teaching science in elementary grades; demonstration experiments adapted to elementary classroom work; curriculum planning; recent research and its application; field trips.

Bio 599 *Research Seminar* 2
The analysis and writing of the research report. This seminar is required of all students who elect to write a thesis.

EDUCATION

(A course in the foundations of education, or its equivalent, is prerequisite to all courses.)

Semester Credits

Edu 502 *Secondary School Curriculum* 2
A survey of current practices and trends in reorganizing and reorienting the secondary school curriculum, with emphasis on the various integrating techniques. Particular attention will be given to the critical analysis and evaluation of the experimental results of such practices. Specific application will be made to each of the major subject matter areas.

Edu 506 *The Junior High School* 2
The development, function, and philosophy of the early years of secondary school. A study of the curriculum, teaching assignments, characteristics of pupils, and special problems of the junior high school.
Prerequisite: A course in Adolescent Development or its equivalent.

Edu 508 *The Core Curriculum* 2
The theory and philosophy underlying the core curriculum. A study of specific school core programs in secondary schools will be studied and evaluated.

Edu 509 *Contemporary Teaching Trends* 2
A study of the newer trends of teaching in the elementary and secondary school with respect to effective adaptation of these newer practices to the curriculum. Such areas as team-teaching, programmed instruction, and various media of communication will be evaluated.

Edu 510 *Educational Foundations* 2
The history of education; factual history integrated with educational philosophy and thought; the evolution of present day educational theories and issues from early times. This is a required course for all curricula, and should be taken early in the program.

Semester Credits

Edu 520 *Comparative Education* 3
Major problems of education in a number of foreign countries in relation to similar problems in the United States. Attention is given to the reasons for the various patterns of education in terms of purposes and philosophies as they pertain to differences in organization and administration.

Edu 525 *The Teacher and Administrative Leadership* 2
A study of processes and methods of local leadership and participation by the classroom teacher, including an understanding of human relations. The relationship between the classroom teacher and other school personnel.

Edu 526 *Programmed Instruction* 2
A workshop type course designed to give the student experience in program writing. The course will include instruction in learning theory, programming techniques, program writing, and will also include the analysis and evaluation of existing programs.
Prerequisite: A course in Educational Psychology.

Edu 528 *Production of Projected Still Materials* 2
This course deals with the various techniques for producing materials for use on the overhead and opaque projectors. Laboratory fee.

Edu 529 *Production of Non-Projected Materials* 2
Techniques in the production and use of such teacher prepared devices as bulletin boards, felt boards, magnetic boards, flip charts, etc.

Edu 530 *Selection and Effective Utilization of Audio-Visual Materials* 3
Concerns the approved methods of selecting audio-visual materials for maximum values to the curriculum, as well as principles applied to efficient use of each of the major types of materials.
Prerequisite: A basic audio-visual course.

Edu 532 *Photography for Teachers* 3
Theories and practice in the field of still photography with particular emphasis on the production of photographic transparencies, including Polaroid photography. One unit of study deals with the production of motion pictures. Laboratory fee.

Edu 533 *Television in Education* 3
For teachers, school administrators and nonschool persons that are interested in the educational value of commercial, educational and closed-circuit television. Emphasizes the principles and practices of educational television systems. Presents the theory and limited practice in planning and producing educational televised lessons.

Edu 534 *Seminar in Instruction Materials* 2
A workshop type course probing the problems in the use of the various instructional media and providing opportunity for investigating the values of community resources, teaching machines, etc.
Prerequisite: A basic audio-visual course.

Edu 535 *Organization and Administration of the Audio-Visual Program* 3
Includes a study and analysis of the function of the school's audio-visual education program. The selection and evaluation of materials and equipment, unit costs, problems of developing and maintaining an efficient operation.
Prerequisite: A basic audio-visual course.

Semester Credits

Edu 540 *In-Service Education Seminar* 2

For teachers and supervisors who are interested in the many techniques, media and resources which can be utilized for in-service education programs. Study concerns the staff working together; preparation of curriculum materials; use of consultants; and community resources for organizing a school improvement program. Enrollment by permission of the instructor.

Edu 541 *Creative Teaching* 2

Study of the nature and conditions associated with creativity along with skills and techniques most likely to result in the full development of the creative potential of the learner.
Prerequisite: A course in Educational Psychology or its equivalent.

Edu 542 *Curriculum Development for Culturally Disadvantaged Children* 2

Historical presentation and analyses of curricular innovations attempting to aid the culturally disadvantaged in developing skills necessary for maximal personal adjustment to society. A study will be made of both the school and community's responsibility in this area. A variety of appropriate resources will be used. (Open by Permission of Instructor).

Edu 550 *Advanced Educational Psychology* 3

Intensive study of the processes by which skills, understandings, concepts and ideals are acquired; examination of teaching practices in relation to basic research on learning. A study of similarities and differences in learning theories.

Prerequisite: A course in Educational Psychology or its equivalent.

Edu 566 *The Activity Program in the Secondary School* 2

A course dealing with the organization and development of an educationally sound activity program. A survey of the various types of activities and their function in the over-all school program. Emphasis is upon character building and leadership opportunities for students as well as the role the teacher plays in such a program.

Edu 580 *History and Philosophy of Education* 3

Individual and group research employed to study the historic background and development of education and the co-ordinate influences which diverse philosophies have had on educational practices in a democratic social order.

Prerequisites: Edu 500 and Edu 510.

Edu 590 *School Law* 2

A course dealing with the legal background of educational organization in various states as it pertains to the role of the state itself, the intermediate and the local units. Particular attention will be paid to the legal status of the school board, the rights and privileges of the teacher, the board and the child. Much will be made of the case study technique.

Gui 564 *Homeroom Guidance* 2

A thorough study of the guidance function as it pertains to the homeroom teacher. Special emphasis is given to this form of guidance in the junior high school.

Prerequisite: Educational Psychology, and an introductory course in guidance.

Semester Credits

Gui 567 *Group Guidance* 2

A study of the interactional processes involved in intergroup and intra-group situations with reference to the school program. Special attention is given to the role of the group leader. Opportunities are afforded students to participate in group thinking and behavior and to evaluate the performance of groups.
Prerequisite: An introductory course in guidance.

Gui 570 *Principles and Techniques of Interviewing and Counseling* 2

A study of theory and practice in interviewing as used in counseling and for other purposes involving person-to-person contact. Opportunities for actual practice in interviewing will be offered.
Prerequisites: Gui 500, and either Psy 552 or Psy 557 (or the equivalent).

Psy 552 *Personality Development* 2

This course deals with the interaction and effects of the forces that affect personality development. Normal and neurotic development are contrasted, and the principles of personality measurement are explored.
Prerequisites: General Psychology, Educational Psychology and Human Development.

Psy 554 *Group Dynamics* 2

This course deals with group structure and the interaction of persons within the group. Group cohesiveness, formation of group norms, and the relation of the individual to the group are all explored with a view to more effective group participation.
Prerequisite: General Psychology.

Psy 557 *Advanced Mental Hygiene* 2

The principles of mental hygiene are studied in depth and in relation to emotional and social adjustment.
Prerequisite: General Psychology.

ELEMENTARY EDUCATION

Semester Credits

Art 500 *Art Activities in the Elementary School* 2

Formulating the art curriculum in the elementary school; organizing materials and procedures in keeping with contemporary trends in educational philosophy.

Edu 500 *Methods and Materials of Research* 2

An introduction to the basic principles of research in education with attention to types of research, techniques of gathering data, and the application of methods to specific types of research problems. The student will be introduced to research literature and typical research reports.

Edu 501 *Foundations of Reading Instruction* 2

A basic survey course covering the major areas of the reading field. Consideration is given to: reading readiness, initial reading instruction, word analysis, comprehension, reading skills development, evaluation of reading needs, and implications of the psychological processes involved. Open only to students with no undergraduate course in the teaching of reading.
Prerequisites: Educational Psychology and Child Development.

Semester Credits

Edu 504 *Reading in the Content Areas* 2

This is a course in the teaching of reading in the various content fields. The major topics are: the place of reading in the school program, problems in reading curricular materials, methods of meeting needs in different curriculum areas, general and specific reading skills, study methods, critical reading, adjusting to individual differences.
Prerequisite: Edu 501 or its equivalent, as determined by the instructor.

Edu 505 *Curriculum and Research in Language Arts* 2

Curriculum planning; modern teaching methods; instructional materials; recent research and its application in the classroom in relation to the content and skills of oral and written communication.
Prerequisites: Edu 501 and 513, or their equivalent.

Edu 507 *Social Studies Curriculum and Instruction* 2

Curriculum planning; modern teaching methods; instructional materials; recent research and its application in the classroom; use of maps and globes.
Prerequisites: Educational Psychology and Edu 504.

Edu 511 *Unit Teaching in the Elementary School* 2

An intensive study of the unit method of teaching and the integrated curriculum, with special emphasis on the content fields.
Prerequisite: A course in the teaching of social studies in the elementary school.

Edu 513 *Teaching the Communication Skills* 2

An introduction to the teaching of language (oral and written) and arithmetic — content, methods, materials, and organization. Open only to those whose undergraduate major was not elementary education.
Prerequisites: Child Development and Educational Psychology, or their equivalents.

Edu 515 *Meeting Individual Needs of Elementary School Children* 2

An advanced course concerned with methods and materials for individualizing instruction in the subject and skill areas, and with meeting individual needs in personal adjustment.
Prerequisite: Undergraduate major in elementary education, or all required courses under B, Area of Specialization.

Edu 517 *Curriculum Problems in Elementary Education* 2

Examination of current trends and basic problems in the elementary school curriculum; practical, creative projects and investigations dealing with actual teaching situations.
Prerequisites: Edu 500, Edu 510, undergraduate major in elementary education or all required courses under B, Area of Specialization.

Edu 519 *The Kindergarten-Primary School Program* 2

A survey of kindergarten-primary principles, procedures, and materials appropriate to the school level indicated.
Prerequisite: Teaching experience in the elementary school.

Edu 521 *Analysis, Diagnosis, Correction of Reading Difficulties* 2

Treating remedial reading cases: individual and small group instruction; classification of types of problems; corrective and remedial procedures.
Prerequisite: Foundations of Reading or equivalent.

Semester Credits

Edu 523 *Supervision in the Elementary School* 2

(Replaces Edu 523, Elementary School Organization and Supervision, as listed in previous bulletins.)
Basic concepts and practices involved in working with teachers and student teachers toward the improvement of instruction. Topics to be discussed include: nature and scope of the processes of supervision, professional relationships, conferences, evaluation, and professional growth of teachers. Designed primarily for teachers who have or expect to have some supervisory responsibility; e.g. team leaders, cooperating teachers. Enrollment by permission of the instructor.

Edu 527 *Audio-Visual Materials in the Elementary School Curriculum* 2

Practice in techniques of using and evaluating the modern communications media in the classroom; correlation of audio-visual materials and techniques with the modern elementary school program.
Prerequisite: A basic A-V course.

Edu 536 *Television: Equipment, Planning and Production I* 3

The basic concepts of television production and programming as they relate to instructional use in the classroom. Includes information on the operation and anatomy of the television studio.

Edu 537 *Television: Equipment, Planning and Production II* 4

Continuation and development of skills and knowledge in Theater Arts. Student will be required to develop and produce a series of educational television lessons.

Edu 538 *Television: Production of Graphic Arts* 3

Gives the student practical experience in the production of visual and graphic materials necessary in television. Workshop session where graphics are prepared and presented by television; followed with evaluation by the group.

Edu 539 *Methods and Materials of Teaching in the Content Areas* 4

A basic course in methodology which explores effective practices in teaching social studies, science, and health in the elementary school. Open only to those whose undergraduate major was **not** elementary education.
Prerequisites: Educational Psychology and Child Development, or their equivalents.

Edu 561 *Guidance in the Elementary School* 3

Focuses on the classroom teacher as the key person in guidance and on ways of helping children develop healthy personalities. Presupposes an understanding of content and methods in elementary education.
Prerequisite: Educational Psychology and Child Development, or their equivalents.

Edu 563 *Measurement and Evaluation in the Elementary School* 2

Emphasizes a diagnostic approach in evaluating the various aspects of children's growth; includes both informal and formal methods of evaluation.
Prerequisite: Undergraduate major in elementary education (including Child Development), or all required courses under B, Area of Specialization.

Edu 565 *Improving Instruction Through Efficient Classroom Management* — *Semester Credits* 2

(Replaces Edu 536, Supervision in the Improvement of Instruction, listed in previous bulletins.)
Explores the teacher's role in planning and management of those activities which facilitate classroom instruction and learning. Special attention is given to planning and scheduling of learning activities, caring for class routines, insuring availablity of instructional materials and the efficient utilization of school time.
Prerequisite: Undergraduate major in elementary education, or all required courses under B, Area of Specialization.

Edu 567 *Creative Expression in the Elementary School* 2

A laboratory course designed to help teachers work with children in the creative arts. Emphasis is placed upon the child's needs to discover creative interests and upon the development of skills and refinements of taste needed for rich experience in art, music, and literature.
Prerequisite: Undergraduate major in elementary education, or all required courses under B, Area of Specialization.

Edu 591 *Research Seminar in Elementary Education* 1-2

(Elementary Education Majors)
Proposed research problems and procedures are formulated and presented for discussion and constructive, critical evaluation and analysis. Special attention is given to the format and preparation of research studies and guidance during the various stages of progress. Students who have not completed their primary research papers, research projects, or theses in other courses must sign for this course until the research has been completed.
Prerequisites: Edu 500, Edu 510 and all required courses in Area of Specialization (either A or B).

Edu 610 *Master's Thesis* 3

Psy 551 *Seminar in Child Development and Behavior I: Aspects of Growth* 3

A study of children's needs, development, and behavior from birth to adolescence. Emphasizes the longitudinal approach to child study and the uniqueness of growth patterns. Open only to students with no undergraduate course in Child Development.
Prerequisites: General and Educational Psychology, or the equivalent.

Psy 553 *Seminar in Child Development and Behavior II: The Case Study Approach* 3

A developmental-clinical approach to child development. Emphasis will be placed on prenatal, postnatal, infancy, and early childhood environment and experiences as they are reflected in the behavior of the child. Collection and presentation of observations will be stressed.
Prerequisite: A basic course in Child Development.

Psy 570 *Psychology of Mentally Atypical Children* 2

The status and characteristics of the mentally atypical child. The course is concerned with the mentally superior as well as the mentally retarded child.
Prerequisites: General and Educational Psychology, or the equivalent.

Psy 571 *Methods and Materials for Mentally Atypical Children* (Elementary) 2

A course dealing with the best practices for developing effective methods and materials for meeting the needs of mentally atypical children. Emphasis is on motivating the individual for accomplishing maximum capabilities as well as teaching groups to strive for proper adjustment and maximum achievement.
Prerequisite: Edu 570 or equivalent.

Semester Credits

Psy 574 *Methods and Materials for Mentally Atypical Children (Secondary)* 2
Same as course number 571 with emphasis on teaching secondary school pupils.
Prerequisite: Edu 570 or equivalent.

Psy 575 *Psychology of Psysically Atypical Children* 2
The status and characteristics of children who deviate from the physically normal. A survey of sensory and orthopedically handicapped children and the social and psychological effects of such handicaps.
Prerequisites: General and Educational Psychology, or the equivalent.

Psy 576 *Methods and Materials for Physically Atypical Children* 2
A study of the best practices for developing effective methods and materials for meeting the needs of physically atypical children. Both individualized and group instruction methods are emphasized.
Prerequisite: Edu 575 or equivalent.

ENGLISH

Semester Credits

Eng 502 *History of the English Language* 2
An examination of the basic influences on the structure and general nature of the English language as it is used today.
Prerequisite: At least one undergraduate course in the field of language structure and usage.

Eng 511 *English Literary Criticism (1800-1920)* 2
A study of the critical dicta which influenced the course of English literature between 1800 and 1920. Special considerations will be given to such major figures as Coleridge, Hazlitt, Ruskin and Arnold.
Prerequisite: At least one undergraduate course in English Literature.

Eng 512 *American Literary Criticism (1800-1920)* 2
A study of the critical dicta which influenced the course of American literature between 1800 and 1920. Special consideration will be given to Poe, Whitman, Howells, and the New England writers.
Prerequisite: At least one undergraduate course in American literature.

Eng 514 *American Literary Movements* 2
A detailed analysis of the development of American literature through a study of the major movements. Special emphasis will be placed on the influence of major writers on literary concepts, trends and critical dicta.
Prerequisite: At least one undergraduate course in American literature.

Eng 521 *English Literature to Chaucer* 2
A study of certain significant figures in English literature beginning with the Old English Period and closing with the Pearl Poet. Emphasis upon origins, trends, and influences. Reading, reports, research.

Eng 522 *Chaucer* 2
A study of the life and works of Chaucer; readings, reports, and class discussions of major works and theories of origin and influence.

Semester Credits

Eng 523 *Eighteenth Century Novel* 2

The significant master works of prose fiction in England from Defoe to the end of the century; development of types of the novel; the theories of structure, techniques of characterization, and the philosophies of the major authors.

Eng 524 *British and Continental Short Story* 2

A consideration of the short-story form especially as concerned with its origin, development, and current trends. Emphasis upon the influences of German, French, and Russian writers upon the British form.

Eng 525 *Biography* 2

A survey of biographical writings from Plutarch to the present. Emphasis upon origins and trends and major figures such as Boswell and Johnson.

Eng 526 *Tudor Poetry and Prose* 2

A study of the nondramatic literature in England from Wyatt to Jonson. Special emphasis is placed upon the interplay of exterior and interior influences in developing England's Golden Age.

Eng 527 *Stuart Literature to the Commonwealth* 2

An analysis of the growth of English literature from the accession of James I to 1650. Special consideration to the metaphysical school, the sons of Ben, and the political writers.

Eng 528 *Milton* 2

Detailed study of the work of John Milton, including major and minor poems and some of the prose.

Eng 529 *Victorian Prose* 2

A study of the prose writers of the last half of the nineteenth century with emphasis upon the major writers.

Eng 530 *Victorian Poetry* 2

A study of the poets of the last half of the nineteenth century with emphasis upon Tennyson, Browning, and Arnold. Literary movements of the time considered.

Eng 531 *Shakespeare's Predecessors in Drama* 2

A course designed to trace the development of the drama from classical antiquity to the time of Shakespeare. The purpose is to consider the nature, structure, and other major aspects of the principal types of drama.

Eng 532 *Advanced Shakespeare* 2

Discussion with readings, reports, and original research on selected plays; study of origins, development, and influence.

Eng 533 *Romantic Prose and Poetry* 2

A study of the poets of the early nineteenth century with emphasis upon Wordsworth, Coleridge, Keats, Shelley, Byron. Literary movements of the time considered.

Eng 534 *Nineteenth Century American Prose* 2

A study of the major writers and influences in the 19th century American prose.
Prerequisite: At least one undergraduate course in the field of American literature.

Semester Credits

Eng 535 *Twentieth Century American Writers* 2
A study of the major writers and literary movements of the period, 1900 to 1960.
Prerequisite: At least one undergraduate course in American literature.

Eng 537 *Emerson and Thoreau* 2
Detailed study of the works of Emerson and Thoreau and of writers associated with them.

Eng 538 *Hawthorne and Melville* 2
Detailed study of the works of Hawthorne and Melville.
Prerequisite: At least one undergraduate course in American literature.

Eng 541 *Greek and Roman Literature in Translation* 2
A study of the major dramatic, epic, and lyric works from the classical period with their influences upon Anglo-American literature from the sixteenth to twentieth centuries.

Eng 543 *Advanced Problems in Public Speaking* 2
Intensive study of parliamentary procedures for both large and small groups with special emphasis on the problems of the chairman, committee members, conventions, etc.; leadership and participation in group discussion on current public questions; speech making. Special research project is required.

Eng 544 *Problems of Speech Correction* 2
Discussion, lectures, and demonstrations on the rehabilitation of stammerers, of persons with cerebral palsy, cleft palate, hearing loss, and aphasia. Special emphasis on diagnosis, problems, integration with medical and training centers, treatment, and adjustment with society.

Eng 550 *Literature for the Elementary School* 2
A course designed to acquaint the student with the content and approach of the literature program in the elementary school. Although this course is designed primarily for elementary school teachers, it can also be pursued profitably by administrators, curriculum specialists and others interested in the elementary school level.

Eng 590 *Seminar in English* 1 or 2
To be taken at the time thesis is developed. Admission with approval of department, also, for study of a special problem.

ThA 536 *Television: Equipment, Planning, and Production I* 3
The basic concepts of television production and programming as they relate to instructional use in the classroom. Includes information on the operation and anatomy of the television studio. (See Edu 536)

ThA 537 *Television: Equipment, Planning, and Production II* 4
Continuation and development of skills and knowledge in Theater Arts. Student will be required to develop and produce a series of educational television lessons. (See Edu 537)

ThA 538 *Television: Production of Graphic Arts* 3
Gives the student practical experiences in the production of visual and graphic materials necessary in television. Workshop sessions where graphics are prepared and presented by television, followed with evaluation by the group. (See Edu 538)

FOREIGN LANGUAGE

GROUP I *Semester Credits*

Lan 501 *Linguistics* 2
An introduction to the study of language as a science. A history of languages in general, with particular attention to the Indo-European branch. The application of the science of linguistics to the teaching of languages.

Lan 502 *FLES* 2
A study of the problems involved in the teaching of foreign languages in the elementary school. Teaching materials are surveyed and attention is given to special techniques required for the teaching of a foreign language at the elementary school level. Observation of actual elementary school foreign language classes.

Lan 503 *Techniques of Language Teaching* 2
An intensive survey and critical analysis of the texts and other materials used in foreign language teaching. A study of the latest approved methods of teaching foreign languages at the secondary level. Observation of secondary level foreign language classes being taught.

Lan 504 *The Language Laboratory* 2
A study of the latest approved techniques for the use of the language laboratory in foreign language teaching. A survey and analysis of commercial materials available for use in the language laboratory. Practice in composing laboratory drills and in the preparation and voicing of scripts.

GROUP II — FRENCH

Fre 511 *Romance Philology (French)* 3
A study of the historical development of French phonology and morphology from their earliest beginnings to the present. A survey of the chief characteristics of the various Old French dialects, based on an analysis of Old French texts.

Fre 512 *Explication de Texte* 3
A study of the French technique of textual and stylistic analysis known as "explication de texte". Practice in applying these techniques is undertaken through a series of analyses of the works of selected French writers.

Fre 513 *Phonetics* 3
An intensive study of the sounds of French through the application of the phonetic alphabet with a view to developing an absolute mastery of the correct pronunciation and intonation of the French language. Laboratory drill with the latest recordings by leading phoneticians.

Fre 514 *Advanced Grammar and Composition* 3
A conceptual approach to the study of French grammar. An intensive analysis of the various principles of French grammar and syntax. An evaluation of the changes which have occurred in French grammar and usage in recent decades.

Fre 520 *Rabelais and Montaigne* 3
A study of the works of the two major prose writers of the French Renaissance. A survey of the major critical works which deal with their life and writings.

Fre 521 *Moliere* 3
An intensive analysis of the plays of Moliere. A study of the history of comedy in France, and of the life and times of Moliere the man.

Semester Credits

Fre 522 *Voltaire and Rousscau* 3
A study of the major works of Voltaire and Rousseau and a critical and analytical comparison of their respective philosophical points of view. Their impact on the character of Western civilization is also analyzed.

Fre 523 *Proust* 3
The reading and intensive analysis of *A la Recherche du Temps perdu.* A survey of Proustian criticism is undertaken along with a study of Proust the man. The place of Proust in the history of the novel is evaluated.

Fre 524 *Gide* 3
A study of Gide's life and writings. An attempt is made to synthesize Gide's philosophy as an artist and as a human being. A discussion is carried on of Gide's importance in French literature of the first half of the 20th Century.

Fre 530 *French Classical Tragedy* 3
The tragedies of Corneille and Racine are read and analyzed. The history of tragedy in France is studied to give the student an insight into the forces which culminated in the work of the great classical dramatists.

Fre 531 *The French Novel (to the end of the 19th Century)* 3
A history of the novel in France, with particular emphasis on the works of the major French novelists of the nineteenth century: Hugo, Stendahl, Balzac, Flaubert, and Zola.

Fre 532 *The 20th Century French Novel* 3
A study of the French novel in the twentieth century and of the various philosophical, social and aesthetic doctrines which have helped to shape it. An analysis of the masterpieces of the outstanding novelists of the century. (Excluding Proust and Gide, who are treated in a separate course.)

Fre 533 *Lyric Poetry* 3
A study of the evolution of French lyric poetry with particular stress on the 19th century. An analysis of the forms, techniques and rules of French versification. A survey of French poetic doctrine as it evolved through the centuries.

Fre 534 *The Contemporary French Theater* 3
The principal dramatic works of the 20th century are studied and analyzed against the history of the development of the theater in France. The latest techniques and innovations are analyzed and an assessment of their importance and impact on the modern theater is attempted.

GROUP III — GERMAN

Ger 511 *German Philology* 3
A study of the development of German phonology and morphology from their earliest beginnings to the present. A survey of the chief characteristics of Gothic, Old Saxon and Old High German will be introduced. Analysis of the language of the Low German Heliand and the earliest High German documents will be given.

Ger 512 *German Civilization* 3
This course will deal with the social structure of Germany, the evolution of its institutions, and its achievements in the various fields of art.

Semester Credits

Ger 513 *Phonetics* 3
A study of the sounds, forms, and structure of modern standard German, using recorded materials and selected texts.

Ger 514 *Advanced Grammar and Composition* 3
Study of stylistic resources of modern German, based on reading and analysis of selected texts. Discussion, oral and written drill.

Ger 520 *The Age of Goethe* 3
A thorough study of the Golden Age of German literature. German Enlightenment, Storm and Stress and Classicism will be studied. Literary masterpieces will be read and analyzed. Special attention will be given to English influences, especially Shakespeare.

Ger 521 *Goethe* 3
A study of Goethe's works and his development toward classicism. A survey of the major critical works which deal with his life and writings.

Ger 522 *Schiller* 3
A thorough study of Schiller's dramatic works and his development toward classicism. A survey of the major critical works which deal with his life and writings.

Ger 530 *German Reformation, Baroque and Pseudo-Classicism* 3
Literary trends in the period of Reformation and Counter Reformation will be studied. The influence of French classicism upon German Literature of the late 17th and early 18th century will be analyzed and discussed.

Ger 531 *German Literature of the 19th Century* 3
Romanticism, poetic realism, naturalism with special emphasis on the great dramatic and lyric poets of the period.

Ger 532 *German Drama of the 19th and 20th Centuries* 3
A study of the works of the major dramatists of the 19th and 20th Centuries. Special attention will be given to the dramatists of naturalism and expressionism.

Ger 533 *Middle High German Literature* 3
The study of Middle High German literature from 1050-1300 with emphasis on the principal representatives of the Popular and Court Epic and the lyric poetry of the Golden Age.

Ger 540 *The German Short Story* 3
A study of the German Short Story from Romanticism to the present. German Feuilleton will be included. Special attention will be given to Thomas Mann, Kafka and the post-second World War writers.

Ger 541 *Modern German Poetry* 3
A study of modern German poetry with emphasis on Stefan George and his circle, and Rainer Maria Rilke.

Ger 542 *Modern German Novel* 3
The following trends of the modern German novel will be studied: Naturalism, Impressionism, Expressionism and the "New Matter-of-Factness" with emphasis on Hesse, Thomas Mann, Doeblin and Kafka.

GROUP IV — SPANISH

Spa 510 *Advanced Spanish Phonetics* 3
A theoretical and practical approach to phonology, phonetics and phonetic transcription. Regionalistic and dialectal variations are also studied with Tomas Navarro Tomas' standard text: *Manual de pronunciacion espanola.*

Semester Credits

Spa 511 *Advanced Spanish Grammar and Stylistics* 3
An informal rapid review of Spanish grammar with emphasis on related problems fundamental to the American classroom. Exercises will include idiomatic expression, various levels of style and translation.

Spa 520 *Cervantes* 3
Detailed study and analysis of the life and works of Miguel Cervantes Saavedra: the *Novelas ejemplares, Ocho comedias y ocho entremeses, La Numancia, La Galatea,* all of which lead to a careful study of the meaning, philosophy and influence of *Don Quixote.*

Spa 530 *Medieval Spanish Literature* 3
A study of the *mester de juglaria* and the *Poema del Cid;* a view of early related epics and the *mester de clerecia* leads to an analysis of Spain's early historical chronicles. The beginnings of the early Spanish theatre are traced in the framework of this background.

Spa 531 *Spanish Renaissance and Humanism* 3
Consideration of the leading proponents of the humanistic spirit in Spain: Nebrija, Erasmus, the brothers Valdes, the Spanish Inquisition, the Renaissance theatre and the novel, Juan del Encina, Torres Naharro and *la Celestina.*

Spa 532 *Nineteenth Century Spanish Literature* 3
The development of the philosophy and spirit of the Spanish romanticists and *costumbristas,* Duque de Rivas, Espronceda, Gomez de Avellaneda, Becquer, Larra and Mesonero Romanos; the drama and novel as represented by: Pardo Bazan, Palacio Valdes, Clarin and Galdos.

Spa 533 *The Generation of 1898* 3
An overview of the revitalizing forces which took hold in the late nineteenth century and a study of the works of: Unamuno, Azorin, Menendez Pidal, Pio Baroja, Valle Inclan, Benavente, Martinez Sierra and Ruben Dario.

Spa 540 *The Picaresque Novel* 3
The picaresque novel as a truly indigenous creation of Spain: *Lazarillo de Tormes, Guzman de Alfarache, Vida del Buscon;* the picaresque novel as a literary tradition in Spain and in other literary traditions.

Spa 541 *The Modern Spanish Theatre* 3
The "Ibsenite" and social dramas of the late nineteenth century represented by: Lopez de Ayala, Jose Echegaray and Galdos; the transition period headed by Martinez Sierra and the Brothers Quintero will lead to Spain's modernistic drama headed by Federico Garcia Lorca and Alejandro Casona.

GEOGRAPHY

Semester Credits

Geo 500 *Biogeography* 2
A study of causes and effects of major floral and faunal distributions over the earth. The course will stress the natural, original distribution of plants and animals that are of major economic importance to man, and how man has changed these original patterns. The study of new and potential uses by man of the plant and animal world will be included, with particular attention given to the attempt by man to enlarge the distribution area of the plants and animals he finds economically useful.
Prerequisite: World Geography.

Semester Credits

Geo 501 *Geomorphology* 3
The course deals with the classification of major and minor surface features of the earth and their origins. The structures of land forms and the earth processes which brought them about are explained with special references to their relationships to mining, engineering, and other human activities. The interpreting of land forms from topographic maps is an important part of the course.

Geo 502 *Regional Physiography of North America* 3
A regional analysis of the surface configuration of the North American continent. Emphasis will be placed on the geographical interpretation of those aspects of the terrain especially significant in affecting utility of the land.
Prerequisite: Physiography, Geology or Geomorphology.

Geo 503 *General Climatology* 3
The course deals with the meteorological factors influencing the climates of the world and the general patterns of world climates. Climatological data are examined in reference to natural situations and climatic classification. A complete survey of the world climates is presented.

Geo 504 *Regional Climatology of the Continents* 3
A descriptive and explanatory analysis of the characteristics of the climates of each continent. Emphasis is on deviations from the normal world pattern as they are developed through climatic controls associated with the various continents.

Geo 505 *Advanced Cartography* 3
An advanced study of cartographic methods including laboratory work in advanced construction techniques. Map construction, graphic representation, land form drawing, lettering and color reproduction are included in the work.
Prerequisite: Geography 303 or consent of department head.

Geo 520 *Problems of Economic Geography* 3
A study of economic situations in our country and the world, with emphasis on the major problems of production, surplus, marketing, conflicting national policies and special problem areas. Also the problems in gathering, presenting and comparing economic data will be analyzed.

Geo 521 *World Economic Patterns* 3
The course will consider world resource regions and patterns of productivity. Part of the course will deal with changing patterns in world trade. New economic alignments, such as the Common Market groups of Western Europe will be discussed. The effect of newly discovered raw material resources, and the impact of increased industrialization in previously non-industrialized nations and regions will be analyzed. The problems associated with the economic development of backward areas will also be studied.

Geo 522 *Agricultural Geography* 3
A survey of the distribution, variations and significance of the major types of agriculture in the world. Analysis of major world crops and their distribution, with emphasis on relationships to climate, soils, terrain and economic factors will be developed.

Geo 523 *Advanced Conservation of Natural Resources* 3
An economic and geographic appraisal of resource conservation in the United States, including factors of regional and national planning for resource utilization. The summer offspring of this course may be organized as an advanced conservation workshop.

Semester Credits

Geo 524 *Ethnic and Demographic Problems of Geography* 2
A study of the characteristics and distribution of ethnic groups, and the geographic problems that arise from densities of population involving ethnic groups. The course will also include an examination of the physical, social, and economic population characteristics of the ethnic groups. Current and projected world patterns of population distribution will be presented.

Geo 525 *Geography of Regional Planning* 3
The course will consider the current levels of areal development, first on a world scale and then on a national, state, and local scale. The course includes an examination of the factors of space, resources, and natural situation that apply to regional planning. Special emphasis will be given to local or near-by planning projects.

Geo 526 *Urban Geography* 3
The course will consider the rise and growth of cities, the economic base of cities, the classification of cities, cities as central places, and the size and spacing of cities. Attention will also be given to the internal structure of cities and the urban-rural fringe of cities.

Geo 527 *Political Geography* 2
A study of the development and trends of the present world political pattern. The course involves spatial factors affecting the organization of the various political units of the world. Patterns of geographical development will be considered and analyzed.

Geo 528 *Concepts of Modern Global Geography* 2
The course provides an over-all view of physical and human geography on a world scale. Analysis of the physical environment, the distribution of man on the earth and relationships between geography and political functions are important aspects of the course. The study of earth space is related to economic and strategic factors.

Geo 529 *Geographic Influences in World History* 3
Geographic influences in selected aspects of world history are developed. Geographic factors in settlement and expansion, the development of raw materials and major trade areas and routes analyzed. Study is made of changes in the use of land and natural resources in significant periods of world history and the geographic factors related to these changes.

Geo 540 *Geography of the United States* 3
The course includes a study of the physical geography of the country as a basis for an analysis of its geographic regions. Special emphasis is placed on natural resource production, transportation factors, general economic patterns and urban and industrial concentrations.

Geo 541 *Geography of the United States in its World Relations* 3
An analysis of the interdependence of our country in the world of nations. Changing patterns within the United States will be analyzed in relation to economic, strategic and political developments in other parts of the world.
Prerequisite: World Geography.

Geo 542 *Geography of Canada* 3
A study in the physical and cultural regionalism of Canada. The course will survey the natural resources and patterns of human occupance including agriculture, industry and transportation.

Semester Credits

Geo 543 *Geography of Mexico and Middle America* 3
A regional geography of Mexico, Central America and the West Indies. The course will survey the development of political divisions and their present day functions in relation to their geographic conditions. Special emphasis will be placed on the geographic analysis of the part these countries play in Inter-American affairs.

Geo 544 *Geography of South America* 3
A regional geography of South America, including an analysis of the physical base, settlement, agriculture, mining and manufacturing. Emphasis will be placed on Inter-American relations of these countries.

Geo 545 *Geography of Europe (excluding the U.S.S.R.)* 3
An advanced study of the geographic factors in the economic, social and political progress of the European nations. Emphasis will be put on current major problems of the continent in light of their geographic background. Consideration will be given to some geopolitical problems.

Geo 546 *Geography of the Soviet Union* 3
The course includes both European and Asiatic U.S.S.R. and the satellite nations. The elements of the geographic environment and the major regional divisions will be studied in relation to the resource base and the economic and political aims of the country. Emphasis will be placed on the positive and negative geographic factors in relation to the strength and weakness of U.S.S.R. as a major world power.

Geo 547 *Geography of Asia (excluding the U.S.S.R.)* 3
An over-all survey of Asia including a study of physical and geographic regions, with concentrations on the monsoon realm, the Far East and Southwest Asia. The resources and major activities of the people in regions of densest population and greatest economic and strategic importance will be stressed.

Geo 548 *Geography of the Pacific Lands* 3
A study of the physical and cultural geography of Pacific Asia, Australia and the major island groups. Emphasis will be placed on the resources, economic factors, and strategic significance of these areas in light of the present day world economic and political situations.

Geo 549 *Geography of Africa* 3
A study of the physical structure and resources of the continent in light of competing cultures and economic forces which have helped shape the human geography of the continent. The impact of alien cultures, with particular emphasis on Islamic and Western influences in creating geographic regions will be considered. Africa's strategic importance in the present and future world picture will be noted.

Geo 580 *Seminar in Geography in Education* 2
An advanced course on geography in the present day American schools. The work is concerned with meeting the needs of those expecting to teach geography. Techniques of teaching geography in the various forms in which it is currently presented in relation to the curriculum are emphasized.

Geo 581 *Seminar in Modern Philosophy of Geography* 2
A review of modern geographic thought with emphasis on the contributions of American geographers. Points of view on environmentalism, regionalism and other doctrines that find expression in geographic literature will be examined.

Semester Credits

Geo 582 *Seminar in Geographic Literature* 2

The course surveys the geographic literature of various periods in the development of geographic thought and research, with special emphasis on present day writings. Students will examine and discuss the works of many important geographers.

Geo 583 *Seminar in Geographic Writing* 2

A review of the various types of geographic writing and experience in original writing by the students forms the major part of this course. Experience in descriptive writing, statistical analysis and research reporting are included in the program.

Geo 584 *Seminar in Geographic Research* 2

The course will survey the various sources of geographic information and the methods of handling such materials for compiling into reports and geographic writing. Bibliographic aids and archival sources of geographical material will be used in preparation of research reports.

Geo 585 *Geography Field Course* 3

An advanced field course in geography to include both urban and land use studies. Field methods, mapping and assembling of field study findings into geographical reports will be part of the course.

Geo 586 *Area Field Studies (I, II, & III)* 3 to 6

A specific geographic region or area is selected for study in the field. This includes various parts of the United States and foreign countries. Methods in field study, mapping, and assembling of field study findings into geographical reports are included in the procedures. Costs will vary with each course offering. A student may take several of these field courses.

Geo 587 *Geography Workshop for Teachers* 3

A combination of research, field work, teaching procedures and group studies on one or several phases of geography will be organized and carried out on a workshop basis.

HEALTH AND PHYSICAL EDUCATION

Semester Credits

HEd 500 *Methods and Materials of Research* 2

A study of the techniques of research in education with specific application to the field of health, physical education and recreation.
Prerequisite: A course in Measurement and Evaluation in Health, Physical Education and Recreation.

HEd 501 *Advanced Rhythmical Foreign Gymnastics* 2

A comparative study of foreign systems of rhythmical gymnastics stressing music and rhythmical movement done in free style with hand apparatus such as balls, hoops, and wands.

HEd 502 *Elementary Physical Education Workshop* 2

A complete orientation for the teaching of elementary physical education. Principles and practices will be presented and developed. A variety of appropriate activities will be considered from the standpoint of their use at various grade levels

Semester Credits

HEd 503 *Advanced Aquatics* 2

This course for aquatic directors, physical education supervisors, recreation and camp directors, and school administrators. A prerequisite of a high degree of competitive skill is not necessary. The course contains a clinical approach to the teaching and coaching of swimming, diving, and life saving with emphasis on the latest techniques of class organization and instruction. There is also an analysis of competitive diving and swimming strokes from the problem-solving viewpoint; a planning of an all-inclusive aquatic program for schools and camps; and a critique on facilities, equipment and personnel direction. Each student will also pursue a major area of research.

HEd 504 *Dance in Education* 2

Contemporary use of all forms of dance found in schools. Opportunities will be given to develop programs in a specific area of choice. Resources in terms of a variety of music will be fully developed.

HEd 510 *School and Community Recreation* 3

A study of community recreation with special emphasis on the role of the school in relation to the total program.

HEd 511 *Field Problems in Recreation* 2

A study of the field problems commonly met in recreation. Each student will work in a specific problem area in a recreational field. Conferences and resourses will be used in developing solutions to the problem. (Admission by approval of major professor and the Director of Health, Physical Education, and Recreation.)

HEd 512 *Outdoor Education Workshop* 2

A study of the principles, procedures, and skills necessary to conduct an outdoor education program. Students will participate in and serve as leaders in a college sponsored outdoor education program.

HEd 520 *Advanced Coaching* 3

A study of recent trends and changes in theories and techniques of teaching sports. Mechanical principles of efficient movement will be analyzed. Emphasis will be on research related to competitive performance. Specialists in several areas of coaching will serve as guest panelists in this course.

HEd 521 *Administrative Supervision of Interschool and Intramural Athletics* 3

The organization and administration of athletic and intramural programs including the theory principles, and objectives at various levels of competitions. Job specifications of athletic and intramural directors and the delegation and assumptions of responsibilities will be given detailed consideration. Practical operating policies and procedures for athletic administrators will serve as a guide for this course.

HEd 530 *Physiological and Psychological Bases of Motor Activity* 3

A course devoted to the study and analysis of scientific data related to the selection, value, and techniques of instruction in physical education activities. Major emphasis will be on the basic scientific approaches to motor learning and the development of skill patterns.
Prerequisites: Anatomy and Physiology I and II, and Applied Physiology or their equivalents.

Semester Credits

HEd 531 *Adaptive Physical Education Workshop* 3
The recognition of the atypical child as part of a total teaching situation. The nature and extent of common handicaps will be studied. Emphasis will be based upon positive application of activities in the physical educaton field to handicapped children individually and in groups. Students will be placed in the positions of assistant instructors in programs for handicapped children. Activities will include swimming, sports, and games.
Prerequisites: Undergraduate psychology, anatomy and physiology courses.

HEd 532 *Modified Physical Education (Open to ALL graduate students)* 2
A course designed to help the physical education and/or the classroom teacher to select and modify the well-known physical education activities so as to meet the needs of children with special restrictions.

HEd 533 *Remedial Physical Education* 2
A course designed to assist the graduate physical educator to scientifically select and administer specific bodily movements for the purpose of restoring normal strength and function to the affected body parts.

HEd 540 *School Health Problems* 3
A course designed as in-service training to study the current school health problems by using the Case Technique Method. A wide variety of materials, methods, and resources will be utilized in working on these problems.
Prerequisites: One year's teaching experience or equivalent.

HEd 541 *School-Community Health Education Workshop* 3
A study of common problems in the home, community, and school health education areas. The five-point program follows: to provide in-service training in health education; to stimulate and promote an effective follow-up program in health services; to coordinate the efforts of allied health agencies; to stimulate and promote interest in local health units; and to develop an awareness of the place of mental health in the total health program of the home-school-community.

HEd 550 *Foundations and Principles of Health, Physical Education, and Recreation* 3
The basic approach to health, physical education, and recreation through the study of past and contemporary philosophies, principles, objectives, and trends.

HEd 560 *Contemporary Problems in Health, Physical Education, and Recreation* 3
An overview of the problems in teaching health, physical education, and recreation with specific relationship to in-service aspects. Emphasis will be placed on the factors and variables which influence solutions to these problems.

HEd 561 *Measurement and Evaluation in Health, Physical Education, and Recreation* 3
The study of statistical and evaluative procedures and their application to the field of health, physical education and recreation.

HEd 562 *Administrative and Supervisory Practices in Health, Physical Education and Recreation* 3
The nature and extent of the positions of directors or supervisors of health, physical education and recreation. The job specifications will be defined and operational principles and procedures will be developed.

Semester Credits

HEd 570 *Curriculum Developments in Health and Physical Education* 3
Contemporary trends in health and physical education curricula at the elementary, secondary and college levels. Extensive surveys, reports, and analysis of curriculum practices will be applied to the construction of health and physical education programs.

HEd 580 *Contemporary Practices in Safety Education* 3
A course designed to evaluate and interpret research studies and practices affecting the teaching of safety education in schools and colleges.

HEd 591 *Seminar in Health, Physical Education and Recreation* 2
To be taken concurrently with the development of a problem or a thesis. (Admission by approval of major professor and the Director of Health, Physical Education, and Recreation.)

HEd 600 *Research Project* 2

HEd 610 *Thesis* 3

MATHEMATICS

Mat 500 *Methods and Materials of Research in Mathematics Education* 2
A course involving a study of the techniques of research in mathematics education. Included are an analysis of the various types of research, selection of a problem, selection of appropriate procedures and the formulation of a plan of investigation and report.

Mat 501 *Fundamental Concepts of Mathematics I* 3
A course for the elementary teacher. It includes development of our number system, the base of a number system, and the role of the various types of numbers and operations in mathematics. The course stresses the meanings and understandings of the mathematics related to the elementary program.

Mat 502 *Fundamental Concepts of Mathematics II* 3
A continuation of Mat 501. Emphasis is placed upon the structure of the real number system. Basic concepts of geometry are also included for study.
Prerequisite: Mat 501

Mat 503 *History of Mathematics* 2
A course tracing the development of mathematics from the prehistoric to the present. This course involves a study of various areas in mathematics as well as the men responsible for the development.

Mat 511 *Foundations of Algebra* 3
A course in basic concepts in algebra. Beginning with the nature and structure of the number system, the course also includes sets and their use in algebra, mathematical systems in general, and an introduction to abstract algebra.

Mat 512 *Modern Algebra* 3
A standard course in abstract algebra. Various abstract algebra systems such as integral domains rings, fields, and groups are studied from an axiomatic point of view.

Mat 513 *Matrix Algebra* 3
A course in linear algebra. It includes matrices, determinants, their theory and application to systems of equations.

Semester Credits

Mat 514 *Theory of Numbers* 3
A survey of the elementary arithmetic of the integers. The course includes properties of numbers, prime numbers, factorization, congruences and diophantine equations.

Mat 521 *Educational Statistics* 2
A course in statistics for teachers. The course includes measures of central tendency, deviation, correlation and tests of significance of results.

Mat 522 *Advanced Educational Statistics* 2
A continuation of Mat 521. It includes applications of various distributions, analysis of variance and covariance and multivariate analysis.

Mat 523 *Mathematical Statistics I* 3
A course involving the mathematical treatment of random phenomena and an introduction to statistics. Included for study are elementary concepts of probability, conditional probability, compound events, expectation, random variable, and elementary statistics.

Mat 524 *Mathematical Statistics II* 3
A continuation of Mat 523 emphasizing the mathematical aspects of statistics. It includes correlation, sampling, tests of significance, analysis of variance and other topics.
Prerequisite: Mat 523.

Mat 531 *Foundations of Geometry* 3
A course in basic concepts in geometry. Beginning with fundamental notions covering point, line and plane, the course also includes statements in geometry, the structure of geometric systems, Euclidean geometry, and an introduction to non-Euclidean geometries.

Mat 532 *Modern Geometry* 3
A general foundations course in higher geometry. Beginning with a study of axiomatics and the structure of a geometric system, the course also includes Euclidean geometry from the standpoint of the Euclid and Hilbert postulates. Certain topics in projective and hyperbolic geometry are also investigated.

Mat 533 *Projective Geometry* 3
A course in the projective properties of various configurations. Among the topics included for study are projective theory of conics, duality, harmonic sets, cross ratio, Desargue's and Pascal's Theorems, poles and polar relationships.

Mat 535 *Topology* 3
An axiomatic approach to the basic notions of point set topology. The following topics are given a rigorous treatment: metric spaces, topological spaces, product spaces, transformations, completeness, compactness and separability.

Mat 541 *Advanced Calculus I* 3
A course in the foundations of real analysis. Included for study are a rigorous treatment of limits, continuity, derivatives, sequences and Riemann integrals.

Mat 542 *Advanced Calculus II* 2
Continuation of Mat 541. Included for study are functions of several variables, partial derivatives, implicit function theorems, transformations and multiple integrals.
Prerequisite: Mat 541.

Semester Credits

Mat 543 *Differential Equations* 3
A course in the theory, solution, and application of ordinary differential equations. It includes differential equations of the first and second orders.

Mat 545 *Real Variable* 3
A course in real analysis. Included for study are the real number system, sets, order, theory of limits, continuity, derivatives and integrals.
Prerequisite: Mat 535 or Mat 542.

Mat 547 *Complex Variable* 3
A course in complex analysis. Included for study are the complex number system, analytic functions, differentiation and integration, expansions and conformal mapping.
Prerequisite: Mat 535 or Mat 542.

Mat 551 *Arithmetic: Methods, Curriculum and Research* 2
A course in recent developments in the teaching of arithmetic. The course stresses meaning and understanding in arithmetic by analyzing the social and mathematical phases of numbers. Content of the arithmetic curriculum as well as recent research are also considered.

Mat 552 *Seminar in Mathematics Education* 2
A critical re-examination of secondary school mathematics from a professional point of view. The course stresses methods of teaching as well as actual subject matter. Modern trends in secondary school curricula are also considered.

Mat 610 *Thesis* 3

MUSIC

Required Courses

Hum 500 *Seminar in the Humanities* (See page 75) 2

Mus 500 *Methods and Materials of Research* (See page 75) 2

Edu 500 *Seminar in Educational Foundations* 2

Mus 510 *Current Trends in Music Education* 2
Current principles and philosophy in music education in relation to modern educational philosophy and curriculum practices.
Prerequisite: Elementary and Secondary Music Methods.

Elective Courses for Music Students

SECTION I: MUSIC EDUCATION

Mus 511 *Administration of Public School Music* 2
A consideration of administrative problems, curricular content scheduling, in service training of teachers, and supervisory planning will be included. Participants may bring in problems which have been encountered in the supervision and administration of public school music.
Prerequisite: Teaching experience.

Mus 512 *Music Education in the Secondary School* 2
This course deals with the general music class in the Secondary School with special emphasis on the problems in the Junior High School.
Prerequisite: Secondary Music Methods and Teaching Experience.

Semester Credits

Mus 513 *Music in the Elementary School* 2
This course is planned for the music educator with emphasis upon problems, procedures, and materials and their practiced application in the Elementary class room.
Prerequisite: Elementary Music Methods and Teaching Experience.

Mus 514 *Pedagogy of Music Theory* 2
A study of the techniques and materials for use in teaching the various skills included in courses in music theory. Special emphasis will be placed on a harmonic review and theoretical instruction in the public schools. In addition, a comparative study of the work of outstanding theorists, past and present, will be included.

Mus 515 *Marching Band Techniques and Materials* 2
A detailed study of the Marching Band including organization, music, materials, care of instruments and uniforms, marching essentials and contemporary techniques.

Mus 516 *Piano Pedagogy* 2
A consideration of principles and procedures of piano teaching at all levels. Sound practice procedures, as well as the essentials of technique, style, and musicianship will be demonstrated through performance. Opportunity to teach and prepare criticisms will be provided.
Prerequisite: Teaching experience or evidence of sufficient pianistic background to profit from the course.

Mus 518 *Vocal Pedagogy* 2
A practical approach to the principles and techniques of teaching voice at all levels is presented. Stress is laid upon materials and procedures concerned with improving the tone quality of the individual and/or the group.
Prerequisite: Teaching experience or evidence of sufficient vocal background to profit from the course.

Mus 519 *Music Appreciation in the General Music Program* 2
A comprehensive study of the many different approaches to the development of musical understandings which stimulate a sincere appreciation of music. Particular emphasis is placed upon materials and their reflection in pupils' appreciative responses.

Mus 584 *Seminar in Piano Teaching and Teaching Materials* 2
A seminar giving in-service music teachers and supervisors the opportunity for class study of outstanding examples of the piano literature. The role and integration of the piano into the public school program along with suitable teaching materials for class and private study will be analyzed and used in demonstrations and student teaching.

Mus 585 *String Literature and Pedagogy* 2
This course is designed to give music teachers an understanding of the problems involved in teaching string classes. It is basically a study of techniques and methods required for the effective teaching of string classes.

SECTION II. APPLIED MUSIC

a. Keyboard

Mus 541-551 *Advanced Piano or Advanced Organ* 1 or 2
Continued study in all phases of piano or organ performance through the literature from Bach to the contemporary period; opportunity for recital performance will be provided.
Prerequisite: 4 credits in piano or organ with performing experience.

Semester Credits

Mus 546-549 *Piano Ensemble and Master Class* 1 or 2

Emphasis will be placed on the study and performance of accompaniment material, chamber music, and original works and arrangements for four-hands and two-piano combination. Both classical and contemporary literature will be considered. Rehearsal techniques in ensemble playing will receive stress.

Prerequisite: Pianistic ability at a level to function effectively in the class.

Mus 581 *Accompanying* 2

Designed to consider the principles and problems of accompanying by various types of accompanying experiences in the vocal and instrumental literature. Students are given practical experience in studio accompanying at all levels of difficulty.

Prerequisite: Sufficient pianistic background; 4 credits in piano.

b. Vocal

Mus 503 *Advanced Choral Conducting* 2

Discussion, study, and practical application of choral conducting techniques involved in the performance of the music of the various schools of choral writing, sacred and secular.
Prerequisite: Choral conducting.

Mus 531-535 *Advanced Voice* 1 or 2

Continued study in all phases of vocal techniques. Development of repertoire from as many schools as possible including widely contrasting styles for use in church and recital. A voice major should give a recital of three or four groups of songs.

Prerequisite: 4 credits in voice and performing experience.

Mus 536-537 *Vocal Ensemble and/or Chorus* 1

Participation in the preparation of choral and/or ensemble programs for concert performance.
Prerequisite: Chorus experience equivalent to the undergraduate requirement for chorus; sufficient voice and reading ability to profit by extensive work in this area of participation.

Mus 538-539 *Opera Workshop* 2

A practical study of the technique of producing musical stage plays. Covers study of music and action only. Includes preparation of roles, coaching, conducting rehearsals, and possible public performance. Participants engage in singing, accompanying, directing, etc., as needed to supply the experience.

Mus 586-587 *Vocal Diction (two semesters)* 2 or 4

First semester — English, Italian and Latin Diction.
A laboratory course to establish correct pronunciation in singing English, Italian and Latin with practice in the use of the phonetics of these languages in selected standard song repertoire.
Second Semester — French and German Diction.
The study of French and German as applied to singing and the requirements of correct pronunciation through the use of the phonetics of these languages in selected standard song repertoire.

c. Instrumental *Semester Credits*

Mus 501-502 *Advanced Class Instruction in Instruments* 1
This class is offered to students who wish to become familiar with the playing and teaching techniques of the orchestra and band instruments.
Prerequisite: Violin, Clarinet, Trumpet.

Mus 504 *Advanced Instrumental Conducting* 2
Study and practice of the problems involved in conducting more advanced music literature. Developing the ability to read and conduct full scores of works involving larger orchestra than used in undergraduate work.
Prerequisite: Instrumental Conducting.

Mus 561-565 *Advanced Instruments* 1 or 2
Continued study of all phases of technique in relation to the performance of the instrument's repertoire; opportunity for recital performance will be provided.
Prerequisite: 4 credits in instruments and performing experience.

Mus 566-569 *Ensemble and/or Orchestra or Band* 1
Participation in preparation of programs for concert performance.
Prerequisite: Experience equivalent to the undergraduate requirement.

SECTION III. STRUCTURE AND ORGANIZATION OF MUSIC

Mus 521 *Advanced Counterpoint* 2
A course devoted to more advanced study of the polyphonic forms including extensive analysis of instrumental and vocal fugues, and creative writing in the more complex forms.
Prerequisite: The equivalent of Counterpoint description in the undergraduate catalogue.

Mus 522 *Advanced Composition and/or Orchestration* 2
Creative work in various forms.
Prerequisite: A knowledge of the instruments of the orchestra and experience in their use in original composition.

Mus 523 *Advanced Band Arranging* 2
Emphasis is placed on arranging for the high school band. Consideration is given to Bands with inexperienced players and limited instrumentation. Students will have the opportunity to hear their arrangements performed.
Prerequisite: Orchestration or Teaching experience.

Mus 528 *Twentieth Century Musical Styles* 2
A theoretical study of the techniques of representative contemporary composers. Emphasis is placed upon the compositional techniques used and includes the study of harmony and form as these bear upon the problems. Creative work in the styles of the composers studied will be attempted.

Mus 582 *Form in Music* 2
A study of the internal and external aspects of form in music. The varied relationship of motivic elements will be discussed in the analysis of selected works representing the traditional homophonic and contrapuntal forms. Masterworks to be studied will be selected from various periods illustrating a wide variety of styles.

Semester Credits

SECTION IV. LITERATURE AND HISTORY OF MUSIC

Mus 505 *Contemporary Music* 2
A study of the techniques and artistic movements of the 19th century necessary for the understanding of contemporary music. Musical styles and techniques of the 20th century will be studied utilizing recordings, performances, scores, periodicals, etc. Individual composers will be discussed along with the analysis of selected works. The contribution of America to the contemporary musical scene will be emphasized.

Mus 506 *Instrumental Literature* 2
Instrumental materials for public school groups at all levels are discussed and evaluated. Program building and music for special programs are emphasized. Actual performance and recordings are used when possible.
Prerequisite: Instrumental methods and performing experience.

Mus 507 *Vocal Literature* 2
A course designed to meet the needs of students, artists, and teachers giving them a performing and teaching command of representative song repertoire and program building. Material includes classic song literature, lieder, modern songs, and arias from standard operas and oratorios illustrated by performance of and by records, members of the class, and the instructor.
Prerequisite: 4 credits in voice and performing ability.

Mus 508 *Choral Literature* 2
A study of the music used for purposes of choral ensemble through the course of the history of music as an art. Study by participation in actually singing of the material, and by research into some single phase elected by the student with the approval of the professor.

Mus 509 *Piano Literature* 2
A course designed to meet the needs of the performing students, teachers, through the medium of records, discussion and performance of great piano literature.
Prerequisite: Performing experience.

Mus 525 *Woodwind Literature* 2
A comprehensive evaluation of materials for solos and ensembles through actual performance and the use of recordings forms the basis for this course.
Prerequisite: Performing experience.

Mus 526 *Brass Literature* 2
A comprehensive evaluation of materials for solos and ensembles through actual performance and the use of recordings forms the basis for this course.
Prerequisite: Performing experience.

Mus 527 *History of the Opera* 2
Detailed study of the composers and their major contributions to the opera movement.
Prerequisite: 6 credits of History of Music.

Mus 583 *Music in the Baroque Period* 2
A historical and appreciative study of music from 1600 to 1750, with special attention to stylistic and formal developments; significant trends and their relationship to general history and subsequent evolution of the art; some biographical study including Bach and Handel. Outside reading, research papers and classroom discussion required.

Semester Credits

Mus 591 *Music in the Romantic Era* 2

This is a course in musicology concentrating on the developments in music during the Romantic Period, roughly between 1800-1900. It analyzes the changes and trends that took place, and presents the new forms in their comparative aspects. The course deals with ideas and movements, and presents composers and their works as they pertained to objectives and understandings.

Elective Courses for All Students

SECTION V.

Mus 520 *Instrument* 1

Mus 530 *Voice* 1

Mus 540 *Piano* 1

Mus 550 *Organ* 1

Students in any curriculum may elect to study an instrument, voice, piano, or organ and receive credit upon demonstration of satisfactory progress. One individual lesson each week.

Mus 560 *Study and Appreciation of the Opera* 2

Hearing and studying the opera from its origin to the present. Works from Monteverde to Gluck to Briten, Menotti, and Stravinsky will form the "repertoire" of this course. Greater emphasis will be placed on the most significant contributors to the development of the opera.

Mus 571 *Music Criticism and Aesthetics* 2

Exercises in writing musical criticism and essays will be undertaken. Aesthetic concepts of different eras will be discussed.

Mus 590 *Study and Appreciation of The Symphony* 2

An elective course open to music majors and students from other departments and fields of interest. A course presenting the musical forms and literature of the symphony in an intelligible, stimulating, and enjoying way. The course evaluates the basic instrumental forms which directly influence the development of the symphony and follows a comparative growth and expansion through the contemporary period in music. Paramount in the course is the non-technical approach to analysis and the development of meaningful listening procedures for a representative number of carefully chosen compositions from the standard literature for the symphony.

Elective Courses for Elementary Education Majors

Mus 572 *Vitalizing Music in the Elementary School* 2

A course planned primarily for elementary teachers. It aims to prepare them to teach more effectively and to enrich the program of Music Education in the schools. This will be brought about through study of the various series of song and rhythm materials currently available for use in elementary schools. It will develop the basic knowledge of simple instruments such as the xylophone, autoharp, and percussion.

Semester Credits

Mus 573 *Keyboard Activities for the Classroom Teacher* 2
Designed primarily for the elementary classroom teacher through a functional study of the piano. Grasp of fundamental principles of accompanying classroom singing, rhythmic and creative activities by studying and performing practical classroom materials.

Mus 574 *Teaching of Music Appreciation in the Elementary Grades* 2
A course designed for elementary teachers. It aims to provide suitable and available materials from which units of study for a specific grade are organized for the purpose of enriching the music program. Emphasis is placed upon the use of audio-visual materials.

PHYSICAL SCIENCE

Semester Credits

Sci 500 *Philosophy of Science* 3
Ethical and social implications of modern science and technical skills. The course will deal with scientific methods of inquiry, choice of experimental techniques, and logical interpretation of results.
Prerequisites: Completion of an undergraduate major field in one or more of the sciences.

Sci 501 *Historical Geology* 3
The history of plant and animal life on our planet, as shown in the record of the rock formations. Field trips to visit museums as well as laboratory experiences in the study of living forms and fossils will aid graduate students in the comprehension of the great literature of paleontology.
Prerequisite: Completion of an undergraduate field in biological science or general science or the equivalent.

Sci 533 *Physics Demonstrations* 3
Development of laboratory skills and techniques necessary for effective organization and presentation of teacher demonstrations. Demonstrations of important principles will be analyzed. Some principles needing additional demonstrations will be identified and possible techniques for meeting these needs will be suggested. The course is open to all teachers of general science and physics.

Phy 503-504 *Foundations of Physics* 4
A systematic study of the formulation of physics as it is viewed today. Emphasis is placed upon the unifying concepts such as conservation laws and the structure of matter. Three hours of lecture and three hours of laboratory.

Phy 524 *Experimental Physics* 1-3
A study of classical experiments in modern and atomic physics. There will be some library study and some laboratory study of these experiments. Experiments selected will vary depending upon the background and interest of the students.
Prerequisites: A course in atomic or modern physics.

Che 501 *Selected Topics in Physical Chemistry* 3
This course is designed exclusively for teachers of chemistry. The properties of the states of matter, elements of chemical thermodynamics, theory of solutions, electro-chemistry, chemical equilibrium and chemical kinetics will be included.
Prerequisites: Integral Calculus, General Chemistry, General Physics.

Semester Credits

Che 502 *Valence and Molecular Structure* 3
This will include modern theories of Valence; valence bond and molecular orbital treatments; elementary wave mechanics; hybridization of orbitals; metallic bonds and other selected topics.
Recommended prerequisite: Integral Calculus.

PSc 502 *Teaching of Physics in the Secondary School* 2
An introduction to the newest materials and techniques in high school physics.
Prerequisite: One year teaching experience in physics.

PSc 505 *Teaching of Chemistry in the Secondary School* 2
An introduction to the newer approaches to high school chemistry.
Prerequisite: One year teaching experience in chemistry.

PSc 506 *Seminar in Physical Science* 1
Topics vary from year to year depending upon the background and interest of the students.
Prerequisite: Three graduate courses in physical science.

PSc 507 *Recent Advances in Physical Science* 3
A consideration of selected current developments in physical science including their scientific significance and social or economic implications. Open to all students in the Graduate School.

PSc 508 *Nuclear Physics for Teachers* 3
A discussion of nuclear reactions, radioactivity, and aspects of nuclear structure.
Prerequisite: Physics I and II. One course in Modern Physics.

PSc 510 *Electronics for Teachers* 3
Electronic circuits using either vacuum tubes or solid state devices are analyzed, constructed, and tested. Topics included are rectification, amplification, oscillation, and selected test circuits.
Two hours lecture and two hours laboratory.
Prerequisite: Physics I and II.

PSc 511 *Electricity for Teachers* 3
An analysis of the principles of electricity and electromagnetism.
Prerequisite: Ability to use differential and integral calculus. Physics I and II.
Two hours lecture and two hours laboratory.

PSc 512 *Mechanics for Teachers* 3
Mathematical analysis of dynamics and statics.
Prerequisite: Ability to use differential and integral caculus. Physics I and II.

PSc 513 *Modern Physics for Teachers* 3
An introductory study of 20th century contributions and ideas including special relativity, quantum theory, atomic structure, and solid state structure.
Prerequisites: Two semesters of general physics.

PSc 520 *Mineralogy for the Science Teacher* 3
Properties and occurrence of the common and industrially important minerals and their identification in the laboratory. Strategic and critical minerals and the relationship between mineral resources, national development and security will be studied.
Prerequisites: Two semesters of Inorganic Chemistry.

Semester Credits

PSc 531 *Acoustics for the Science Teacher* 3
A general study of wave phenomena with emphasis upon sound. Mathematical analysis of reflection, refraction, interference, and diffraction.
Prerequisites: Physics I and II.

PSc 532 *Space Science* 3
Selected topics from astronomy and related sciences. The major emphasis is upon the problems of exploring the universe beyond Earth's atmosphere and typical results that are being obtained. Open to all students in the Graduate School.

PSc 560 *Workshop in Rocks and Minerals* 3
The most common rocks and minerals will be examined, and their significance will be discussed. Simple classroom methods that help in the identification of rocks and minerals will be demonstrated. Elementary explanations as to the origin and relation of the common rocks and minerals will be presented. This workshop will give the elementary teacher a cursory knowledge of the rocks and minerals that are most likely to be found by students.

PSc 590 *History of the Physical Sciences* 3
Developments from Aristotelian concepts to those established by modern scientific methods. Emphasis will be placed on the role of discoveries in the physical sciences in the development of great nations.
Prerequisites: Two semesters of Inorganic Chemistry or two semesters of College Physics.

SOCIAL SCIENCE

GROUP I AMERICAN HISTORY

Semester Credits

His 510 *Colonial and Revolutionary America: 1607-1783* 2
A study of English colonization of North America; the relations of the colonies to the mother country; the political, economic, social and cultural developments of these colonies; the causes of the Revolution; and the struggle for independence culminating in the Peace of Paris of 1783.

His 511 *The Rise of the New Nation: 1783-1850* 2
An intensive study of the growth of the new nation with emphasis upon the problems of emerging federalism, the development of the constitutional foundations of the republic, the rise of the Federalist Party, the emergence of Jeffersonian Democracy, the evolution of Jacksonian Democracy and the events of the middle period leading to the decade of controversy. The concepts of nationalism, sectionalism and democracy are especially examined.

His 512 *Civil War and Reconstruction: 1850-1876* 2
Study of the conflict between North and South from the Compromise of 1850 through the disputed election of 1876. Among problems considered are the intensification of the sectional struggle, secession, major wartime problems of the Union and the Confederacy, principal military campaigns, the Reconstruction Era and the efforts to create a new Union. The significance of the Civil War and Reconstruction in American History is especially emphasized.

Semester Credits

His 513 *Emergence of Modern America: 1876-1919* 2
Covers the rise of industry, labor, immigration, and new cultural patterns. Coupled with this is the emergence of new political alignments, the rise of imperialism, and the development of liberalism and reform. America's struggle for neutrality and participation in World War I complete this area of study.

His 514 *The United States as a World Power: 1919-Present* 2
A study of America's development as a world power. It deals with the impact of industrialization upon society, politics, and economics; the problems of the war and post-war periods; and the work of our nation toward world unity. Emphasis is placed on the immediate background of current affairs.

His 515 *Problems in American Constitutional Development* 3
Selected problems in the development of American constitutional government. Emphasis is on the progressive adaptation of the law to a changing social and economic order. Such conflicts as nationalism versus states rights and vested rights versus police power are investigated.

His 516 *Recent American Diplomatic History* 2
A study of American foreign policy in Europe, Asia, Latin America, and the Middle East from 1939 to the present. In each area of study there is presented the objectives sought by the United States and the political, military, economic, and social policies it pursued in an attempt to achieve these objectives. Special detail is given to two fundamental issues on which free-world survival depends — the nature of our military strategy and the future of underdeveloped countries.

His 550A *Seminar in American History* 2
Selected problems in American History for research. Open to graduate majors who have had Ssc. 500 and two courses from Group I. Announcement of the proposed subject will be made in advance of each seminar. Seminar may be used as the supporting elective for the departmental thesis or research report.

GROUP II: EUROPEAN HISTORY

His 530 *Problems in Medieval Civilization* 3
The course will concentrate on major facets of Medieval life, with particular emphasis on the late Medieval period. Such topics as feudalism (its origins and causes for decline), the sources and growth of national monarchies, urban life, Medieval christianity, and Medieval philosophy, will be stressed. Every effort will be spent to give the student and understanding, in depth, of the Medieval outlook and way of life.

His 531 *The Renaissance* 2
Emphasis will be placed on causes of the Renaissance, as well as on Humanism and religious trends during the period. The political, military and economic developments of the age will be stressed as laying the foundations for modern Europe, as well as the great artistic and intellectual achievements. Although special attention will be given to Italian contributions, the Northern Renaissance will also be thoroughly covered.

His 532 *The Protestant Revolution* 2
A consideration of the major and minor Protestant leaders and the movements they founded; the effects of these on the evolving nation-states; the Church of Rome's response; the Wars of Religion and the Treaty of Westphalia; the Scientific Revolution.

Semester Credits

His 533 *Dynastic Europe: 1648-1789* 2
The absolute dynastic monarchy as best exemplified by France, Prussia and Russia; the middle-class challenge as typified by the English experience; the Enlightenment and the New Science; capitalism, colonialism, and the wars of empire.

His 534 *The French Revolution and the Napoleonic Era: 1789-1815* 2
A study in depth of the causes of the French Revolution, the failure of absolutism, the Reign of Terror, the Directory; the rise of Napoleon Bonaparte, his contribution to the Revolution, the Empire — its rise and collapse; the Congress of Vienna.

His 535 *Nationalism and Democracy: 1815-1914* 2
The course will emphasize the aftermath and effect of the French Revolutionary era, with particular attention to the events brought on by the growth of nationalism and democracy, and to those occasioned by the development of the industrial revolution. Toward the end of the period, the roots of the First World War, arising from the events and trends, will be examined.

His 536 *Europe Since 1914* 2
A study of twentieth century Europe with emphasis on the causes of World War I; the problems of Europe between World War I and World War II; and the problems of contemporary Europe.

His 540 *The Evolution of Modern Russia* 3
A study of the political, social, cultural and economic developments of Modern Russia; the conflict between East and West; the overthrow of Tsardom; the emergence of the Soviet Union; Soviet Communism; and the Soviet Union's role in the present world.

His 541 *Tudor and Stuart England* 2
Social, cultural, religious, political and economic developments during the Tudor and Stuart reigns: building a strong Tudor monarchy, English Reformation, Stuart Absolutism; Puritan Revolution, Civil War and the Commonwealth, the beginning of Empire; the Restoration, the Glorious Revolution and growth of English constitutionalism.

His 550B *Seminar in European History* 2
Selected problems in European History for research. Open to graduate majors who have had Ssc. 500 and two courses from Group II. Announcement of the proposed subject will be made in advance of each seminar. Seminar may be used as the supporting elective for the departmental thesis or research report.

GROUP III: SOCIAL SCIENCES

A: ANTHROPOLOGY-SOCIOLOGY

Ant 530 *Problems in Anthropology* 3
An intensive survey of several of the major aspects of both Physical and Cultural Anthropology. Emphasis will be placed on topics suitable for discussion and study in the elementary and secondary curricula. Some background in Anthropology is recommended, but is not required.

Ant 550 *Seminar in Anthropology* 2
Selected problems in Anthropology for research. Open to graduate majors who have had Ssc. 500 and two courses from Group III. Announcement of the proposed subject will be made in advance of each seminar. Seminar may be used as the supporting elective for the departmental thesis or research report.

Semester Credits

Soc 531 *Social Pathology* 3
A study of cultural patterns defined by society as undesirable. Analysis of the role of social science principles relating to the functioning of the family, education, and the state in modern society. Pathological patterns in the economic, educational, and political life resulting in social disorganization.

Soc 532 *Historical Sociology* 3
A study of the history of social thought from early primitive beginnings to recent contemporary times. It makes use of social thought in Europe and America. Emphasis is given to a survey of the work and personalities of outstanding American sociologists projected on the background of social theory and research.

Soc 533 *Intergroup Relations* 3
A study of the social processes and specific concepts relative to groups with emphasis upon conflict; interaction group behavior and related areas will be the major interests for study, with the sociological principles of social awareness and prevention given considerable attention in the course.

Soc 550 *Seminar in Sociology* 2
Selected problems in Sociology for research. Open to graduate majors who have had Ssc. 500 and two courses from Group III. Announcement of the proposed subject will be made in advance of each seminar. Seminar may be used as the supporting elective for the departmental thesis or research report.

B. ECONOMICS

Eco 530 *Economics and Public Policy* 3
The principles and methods of economic analysis are applied to an evaluation of the performance of the economic system. Alternative public policies to deal with important economic problems are assessed and compared. Specific topics considered include inflation, recession, and economic growth; problems of public finance and taxation, and public policy with regard to the concentration of economic power.

Eco 531 *Comparative Economic Systems* 3
A study of major forms of economic organizations with particular emphasis on those existing today. The course is presented so as to contrast the structure of capitalism, socialism, communism and fascism.

Eco 532 *History of Economic Thought* 3
The historical evolution of the major economic doctrines; mercantilists and cameralists; physiocrats; Adam Smith and the classical school; the historical school; the Austrian school; Alfred Marshall and the neoclassicists.

Eco 550 *Seminar in Economics* 2
Selected problems in Economics for research. Open to graduate majors who have had Ssc. 500 and two courses from Group III. Announcement of the proposed subject will be made in advance of each seminar. Seminar may be used as the supporting elective for the departmental thesis or research report.

C. POLITICAL SCIENCE

Psc 531 *Modern Political Theory* 3
Critical analysis of enduring political problems, primarily in the writings of European theorists from Machiavelli to the present; an analysis of the basic concepts of political science; and theories concerning the proper role of the State in society.

Semester Credits

Psc 532 *Seminar in International Relations* 3
A study of the factors which motivate the actions of nations on the contemporary international scene; with special emphasis on the machinery which members of the nation-state system have evolved for giving effect to their various policies. The methods of diplomacy, international law, and international organization are stressed.

Psc 533 *The American Legislative Process* 3
An examination of the legislative process in the United States with special emphasis placed upon the executive-legislative relationship. Critical attention is directed to the changing role of the legislature in America's balanced government.

Eco 550 *Seminar in Political Science* 2
Selected problems in Political Science for research. Open to graduate majors who have had Ssc. 500 and two courses from Group III. Announcement of the proposed subject will be made in advance of each seminar. Seminar may be used as the supporting elective for the departmental thesis or research report.

GROUP IV: SPECIAL STUDIES

Eco 533 *Teaching Economics in Secondary Schools* 2
This course is designed for teachers of economics in the secondary schools. Major importance is attached to the development of basic principles of economic reasoning and analysis. Methods by which these principles can be taught are studied and discussed, and teaching materials and aids are evaluated. Attention is especially given to suggested procedures and resources for a minimum course in economics in the secondary school.

His 523 *Contemporary World Affairs* 2
An analysis of the causes of the cold war between the U.S.S.R. and the United States and the Western Democracies; contemporary efforts to realize peaceful coexistence of the democracies with the Communist dictatorships; and the impact of the nationalist movements of the peoples of Asia and Africa on contemporary world politics.

His 524 *Cultures of the Non-Western World* 3
A study of the political, economic, institutional, and cultural growth of Africa, India, Southeast Asia, and the Far East. Emphasis is placed on the comparisons and contrasts between these regions and the rest of the world. Special attention is given to recent interpretations of the many new aspects of Asian and African culture.

His 526 *Workshop in World Cultures* 2
A workshop for teachers-in-service who are assigned to teach World Cultures in the secondary schools of Pennsylvania. The objective of the workshop is to provide an opportunity to study the western and non-western cultures through the use of resource persons and faculty; through research in recent reference materials; and through consultation with representatives of cultural regions.

Ssc 500 *Methods and Materials of Research in the Social Sciences* 2
Designed to acquaint the student with the basic techniques and procedures in research, this course treats with the major types of research and the methods for locating, evaluating, and interpreting evidence. Each student develops a tentative outline, bibliography, and summary of investigative procedure for a thesis or research report that must be completed before graduation. A study in historiography and the development of the social sciences are also presented as background material for this course.

Semester Credits

Ssc 502 *Methods and Materials for Teaching Social Studies* 2
The course is designed to acquaint teachers with current practices and procedures in the Social Studies field with emphasis upon organization and planning; the use of classroom, library, and curriculum materials; testing, measurement, and evaluation; and bibliographical sources for both teachers and students.

Ssc 550 *Seminar in Contemporary European Culture* 4
(Student European Tour)
A fully guided tour of Europe with visits to important areas of the major countries. The tour is organized as a seminar with a number of orientation discussions before departure. Opportunity will be provided for questions and discussion periods en route. An annotated diary of the tour will be required from each student, plus a paper in which the student will be encouraged to do individual research on some particular facet of the tour which interests him. Every summer.

Ssc 590 *Research Report* 2
The research report maintains the same form of reporting results as the thesis, but a research report has a greater degree of brevity and a more narrow scope. Also, the report is limited mainly to secondary sources that can be found in libraries and historical societies close at hand. Mainly the aim of the research report is to give the student practice in research techniques and methods of reporting the results.

Ssc 600 *Thesis* 3
The thesis differs from the research report mainly in three aspects: it is of larger scope, it must contain primary sources (as well as secondary), and it must develop arguments to support a proposition or theory. A thesis also tries to bring forth new information. It is permissible to deal with a thesis topic that has been developed in some earlier investigation, *provided* the recent researcher, covering old ground, presents a new interpretation of the information or new evidence that is significant.

Supporting Elective

The graduate student must take course work in fields of study necessary to augment his background for work on his thesis or research report. If the thesis or research report is in the realm of colonial history, for example, his supporting elective must be in Colonial History. The elective might be in another department, but only if the thesis or research report subject warrants this. A thesis or research report in colonial literature for example, would be supported by a course in American Literature.

COURSE OFFERINGS OPEN TO ALL CURRICULA

Listed below is a list of elective courses that are open to all curricula. Each curriculum provides an option to the graduate students whereby he may take at least six hours of graduate work outside his major field of concentration.

BIOLOGY

Semester Credits

Bio	545	Developmental Anatomy	3
Bio	561	Human Heredity	3

EDUCATION

			Semester Credits
Edu	502	Principles of Curriculum Development in the Secondary Schools	2
Edu	506	The Junior High School	2
Edu	508	The Core Curriculum	2
Edu	520	Comparative Education	2
Edu	525	The Teacher and Administrative Leadership	2
Edu	530	Selection and Effective Utilization of A-V Materials	2
Edu	531	Creative Teaching	2
Edu	535	Organization and Administration of the Audio-Visual Program	2
Edu	540	In-Service Education Seminar	2
Edu	550	Advanced Educational Psychology	2
Psy	552	Personality and Mental Hygiene	2
Edu	555	Educational Statistics	2
Gui	560	Techniques in Guidance and Counseling	2
Edu	566	The Activity Program in the Secondary School	2
Edu	580	History and Philosophy of Education	2
Edu	590	School Law	2

ENGLISH

			Semester Credits
Eng	502	History of the English Language	2
Eng	511	Engish Literature Criticism (1800-1920)	2
Eng	523	Eighteenth Century Novel	2
Eng	524	British and Continental Short Story	2
Eng	525	Biography	2
Eng	529	Victorian Prose	2
Eng	532	Advanced Shakespeare	2
Eng	535	Twentieth Century American Writers	2
Eng	541	Greek and Roman Literature in Translation	2
Eng	543	Advanced Problems in Public Speaking	2
Eng	550	Literature for Elementary School	2

GEOGRAPHY

			Semester Credits
Geo	501	Geomorphology	3
Geo	503	General Climatology	3
Geo	528	Concepts of Modern Global Geography	3
Geo	529	Geographic Influences in World History	3
Geo	523	Advanced Conservation of Natural Resources Workshop	3
Geo	540	Geography of the United States	3
Geo	541	Geography of the United States in its World Relations	3
Geo	543	Geography of Mexico and Middle America	3
Geo	544	Geography of South America	3
Geo	545	Geography of Europe (Excluding the U.S.S.R.)	3
Geo	587	Geography Workshop for Teachers	3

(Other courses by approval of the Geography Department)

HEALTH AND PHYSICAL EDUCATION

			Semester Credits
HEd	502	Elementary Physical Education Workshop	2
HEd	503	Advanced Aquatics	2
HEd	504	Dance in Education	2
HEd	530	Physiological and Psychological Basis of Motor Activity	2
HEd	532	Modified Physical Education	2
HEd	540	School Health Problems	2

MUSIC

			Semester Credits
Mus	560	Study and Appreciation of the Opera	2
Mus	571	Music Criticism and Aesthetics	2
Mus	580	Music in National and International Affairs	2
Mus	590	Study and Appreciation of The Symphony	2
Mus	591	Music in the Romantic Era	2

PHYSICAL SCIENCE

			Semester Credits
PSc	507	Recent Advances in Physical Science	3
PSc	532	Space Science	3
PSc	560	Workshop in Rocks and Minerals (Elementary School Teachers)	3

SOCIAL SCIENCE

			Semester Credits
Ssc	550	Seminar in Contemporary European Culture (Student European Tour)	4
His	524	Cultures of the Non-Western World	3
His	526	Workshop in World Cultures	2
Ant	530	Problems in Anthropology	3
Eco	530	Economics and Public Policy	3
Psc	533	The American Legislative Process	3
Soc	531	Social Pathology	3

FOR STUDENTS WHO HAVE HAD His 211:

His	510	Colonial and Revolutionary America: 1607-1783	2
His	511	Rise of the New Nation: 1783-1850	2
His	512	Civil War and Reconstruction: 1850-1876	2

FOR STUDENTS WHO HAVE HAD His 212:

His	513	Emergence of Modern America: 1876-1919	2
His	514	United States as a World Power: 1919-present	2
His	516	Recent American Diplomatic History	2

FOR STUDENTS WHO HAVE HAD His 101-102:

His	523	Contemporary World Affairs	2
His	530	Problems in Medieval Civilization	3
His	531	The Renaissance	2
His	532	The Protestant Revolution	2
His	533	Dynastic Europe: 1648-1789	2
His	534	The French Revolution and Napoleonic Era: 1789-1815	2
His	535	Nationalism and Democracy: 1815-1914	2
His	536	Europe Since 1914	2
His	540	The Evolution of Modern Russia	3
His	541	Tudor and Stuart England	2

SUMMARY OF REQUIREMENTS THAT MUST BE MET BEFORE THE MASTER OF EDUCATION DEGREE CAN BE GRANTED

The master of education degree will be granted only upon:

1. Unrestricted admission to candidacy for the Degree.
2. Submission and approval of the professional research thesis in the 30 credit program or satisfactory completion of the 34 credit program.
3. Completion of a minimum of one year of successful teaching experience with at least a "satisfactory" rating assigned by the administrative officer responsible for the supervision of the instructional activities of the degree candidate. Other experience in lieu of this requirement may be accepted upon the recommendation of the Graduate Council.
4. Completion of all graduate courses with the grade of "C" or better and with a total quality point average of 2.75 or better.
5. Satisfactory performance on a final oral and/or written comprehensive examination conducted by the student's advisory committee in the field of specialization.

ADMISSION TO CANDIDACY FOR THE MASTER OF EDUCATION DEGREE

Graduate students who wish to be admitted to Candidacy for the Master of Education Degree must:

1. Make formal application to the Director of the Division of Graduate Studies.
2. Complete successfully with a grade of "B" or better, at least six semester hours of graduate credit at West Chester State College.
3. Submit transcripts of graduate credit earned at other colleges and universities.
4. Achieve a satisfactory score in the Graduate Record Examination.
5. The applicant must show evidence of academic, personal and professional qualities deemed acceptable by the administrators of the graduate program and the department concerned.
6. The applicant must have a personal interview with the Director of Graduate Studies.
7. On the basis of the interview and data at hand, the Director or the Department Chairman will draw up a program of studies to be followed by the student. It will include undergraduate deficiencies, if any, as well as minimum requirements in general education, subject areas, and professional education.
8. An adviser will be appointed to direct the graduate work of each student. Generally this will be the Chairman of the major department, or a member of the Graduate Faculty of that department, as designated by the chairman.

RESEARCH REPORT AND THESIS

The Research Report* may be a part of the requirement of the 34-credit or Non-Thesis Program. It may carry from one to two graduate credits. The Thesis is required of the 30-credit or Thesis Program. It will carry three semester credits. The decision to take the Thesis Program or the Non-Thesis Program is subject to the approval of the advisor who will consider the question on the basis of the student's needs and ability. Each thesis must be accompanied with an abstract of the thesis which will be used for the purpose of publication by the College. All rights and privileges of the author will be protected.

The Research Report must be aimed at developing the student professionally in his major field. While the thesis must have the same basic aim, it is much more extensive and hence more demanding of the student's time and abilities.

The Graduate Council has defined the Research Report and Thesis as follows:

> **A Research Report** is a written record of a scientific investigation to determine the facts of a condition; hence it is essentially a report on a problem. It demands of the researcher a knowledge of the techniques of research and scientific accuracy.
>
> A Thesis is the written account of an exhaustive research to support or refute a belief or a hypothesis. It differs from the Research Report in that it is more comprehensive, and more generally demanding of the writer's knowledge, skills, and general powers of scholarship.

The decision to do a Research Report should be made at an early date by the student. In no case should he defer this matter until late in his course work because the work involved in the report or thesis will undoubtedly extend over two or more semesters.

In thinking of the Thesis, the student should take special note of the three statements listed below. These statements represent official policy of the Graduate Council regarding the Thesis:

1. The department concerned must approve the Thesis as a challenging, soundly executed professional task, worthy of Master's level achievement.
2. A detailed outline of the Thesis must be approved by the Graduate Council before the student is authorized to begin his investigation.
3. The Thesis must be approved by the Department of English for language usage. The Department of English will serve as a reading committee only. In no case is the Department of English to be thought of as an editing committee.

The student must register his decision to do a Thesis at the completion of the course entitled "Methods and Materials of Research." Thus the student's later selection of courses will be affected in part by his decision regarding this matter.

When the Thesis has been approved by the major department, it must be typed and bound in accordance with specifications established by the Graduate Council. These specifications are on file in the offices of the department chairmen. The **Form and Style in Thesis Writing** by Campbell must be used as a format.

The student who submits a Thesis in partial fulfillment of degree requirements must present three bound copies to the Division of Graduate Studies. These must be accompanied with three copies of the abstract. One copy of each will be retained by the Graduate Office, and the remaining copies will be given to the College Library and the major department.

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* Consult with your department chairman or co-ordinator concerning this requirement.

COURSES REQUIRED IN ALL CURRICULA

As shown under the heading "Course Requirements," there are three courses required of all candidates for the Master of Education Degree:

			Semester Credits
Hum	500	Humanities	2
Res	500	Methods and Materials of Research	2
Edu	510	Educational Foundations	2

Descriptions of these courses follow:

Hum 500 *Humanities*

This is a composite course composed of three major fields of subject matter: 1. Art and Architecture, 2. Music, 3. Literature. This material is closely correlated to show the relationship of the three fields to each other and to the central theme of a general philosophy connecting these fields to life. The instructors teaching this course develop specific material in concert to establish an over-all unity.

Elem Edu 500 *Methods and Materials of Research*

Sec Edu 500 *Methods and Materials of Research*

HEd 500 *Methods and Materials of Research*

Mat 500 *Methods and Materials of Research*

Mus 500 *Methods and Materials of Research*

SSc 500 *Methods and Materials of Research*

A course designed to acquaint the student with the basic techniques and procedures in research; this course treats the major types of research and the methods for locating, evaluating, and interpreting evidence. It also includes the actual preparation of a research paper. This course is given by curriculum (Elementary, secondary, mathematics, social science, and health and physical education) in order to meet the needs of the specific fields.

Edu 510 *Educational Foundations*

The history of education; factual history integrated with educational philosophy and thought; the evolution of present-day educational theory and issues from early times.

STUDENT LOAD

During summer session, the normal program of a graduate student consists of one semester hour of work for each week of the summer term.

During the college year, a regularly employed teacher may register for not more than six semester hours of courses during a semester unless his schedule is approved by the Director of Graduate Studies.

A full-time graduate student may take from 9-12 semester credits of work, providing he has the approval of the department chairman to do so.

MARKING SYSTEM

The marking system employed in the Graduate Program is the same as that of the undergraduate program. (A = 4.0)

A — Superior
B — Above Average
C — Average
D — Passing
F — Failure
I — Incomplete

The following restrictions are enforced in the marking system:

1. The student must maintain an over-all average of at least 2.75.
2. Grades lower than C are not acceptable in satisfying degree requirements.
3. Courses which, for some valid reason (unavoidable absence during final examination, etc.), are not completed by the end of a given semester must be completed before the close of the succeeding semester unless the Graduate Council grants an individual exception from this requirement.

Courses in which a student receives a grade of I (incomplete) must be completed before the final marking period of the following session unless an extension of time is granted by the Chairman of the Department involved, or the grade is recorded permanently as F (failure).

WITHDRAWALS

Any student withdrawing from a class without official authorization is automatically disqualified from the Graduate Program. He can be admitted to further graduate study only through application to the Graduate Council.

*CREDIT BY TRANSFER

Applicants for admission with advanced standing may transfer a maximum of six semester credits from other approved graduate schools.

All transfer credits are subject to the following conditions:

1. The credits must fall within the stipulated six-year time limit noted under the heading of Residence Requirements.
2. The course grade must be at least B.
3. The courses involved must be essentially the same as those offered at this institution.

In no case will a transfer student be given credit towards satisfying any requirements other than course requirements. This statement means that students may not transfer credit of examination for Admission to Degree Candidacy or any other type of examination credit.

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* See Residence Requirements.

EXAMINATIONS

As noted in the requirements for admission, examinations vary according to the classification of the student; e.g., degree candidates must pass specific comprehensive examinations. Every graduate student must accept responsibility for knowledge of the examinations required of him.

He should consult with his advisor, major field professor, or the Director of Graduate Studies about the examination program.

All students working for a degree are required to take two examinations:

The Admission to Degree Candidacy Examination

The Area of Specialization Examination

In addition, however, some students will be required to take a general background examination.

An explanation of the examinations and the conditions under which they will be required follows:

1. *The Admission to Degree Candidacy Examination* — The Admission to Degree Candidacy Examination is administered by the Graduate Office and evaluated by the student's major department. This examination must be taken some time between the acquisition of six and fifteen semester credits. The examination is broad and comprehensive in nature involving the *Graduate Record Examination* made by the Educational Testing Service. This test has two major parts. The first part includes a broad general background examination; and secondly, the last part includes a test in the student's major field of concentration*, such as elementary education, mathematics, etc. The cost of the *Graduate Record Examination* is covered in the application fee for degree candidacy.

Application forms are available through the Graduate Office and should be completed and mailed to the Educational Testing Service four weeks prior to the scheduled test date. These tests are usually given in November, January, April and July. They are given on the campus at West Chester State College.

2. *The Area of Specialization Examination* — The graduate student in the thirty (30) credit (Thesis) Program must take the departmental comprehensive (oral and/or written) when he has taken from 24-30 credits of work. In the thirty-four (34) credit (Non-Thesis) Program the student must take the departmental comprehensive examination (oral and/or written) when he has taken from 28-34 credits of work.

The Area of Specialization Examination is a comprehensive examination over the student's major field. The examination is constructed, administered and evaluated by the student's major department. All details of the Area of Specialization Examination are the province of the major department concerned. The degree candidate is urged to confer with his advisor concerning this examination at the earliest possible date.

It is the responsibility of the degree candidate to make application to take this final examination through the chairman of the department concerned.

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*Music and geography majors will consult with their department chairmen concerning this requirement.

The student also will be required to take two examinations* used for diagnostic purposes only.

ADVISORY SYSTEM

The applicant for admission to the graduate studies should think of the chairman of his department as his major advisor until such time as an advisor is assigned him. As soon as the applicant has declared his plans to the chairman of his major department, he will be assigned as the advisee of a professor in his major field. The student, aided by the advisor, will prepare a Program of Studies which outlines in detail the program he must complete in order to be eligible for the Master's Degree. Changes in the Program of Studies must be approved by the student's advisor. The initiative for seeking advisement and fulfilling degree requirements rests with the student.

LIBRARY

Graduate students are entitled to the use of library facilities under the conditions prevailing in the undergraduate program. The student, therefore, should familiarize himself with library regulations at the earliest possible date.

Because many graduate students are on campus for only one day each week, some special privileges are granted in the borrowing of books. The graduate student, however, must realize his obligation to conform with all library regulations. His I.D. or Campus Credit Card will permit him to borrow books from the College Library.

HOUSING FACILITIES

Because this college infrequently has any full-time graduate students during the fall and spring semesters, no provisions for the housing of graduate students are made for those semesters. Graduate students attending the summer session may obtain housing in the college dormitories.

Graduate students living on campus during the summer sessions are subject to all officially stated regulations concerning housing and related matters.

CULTURAL OPPORTUNITIES

The graduate student should avail himself of the cultural opportunities on campus and in the immediate vicinity. The college sponsors All Star Programs, lectures, entertainment, and other significant cultural activities. The immediate vicinity is rich in historical significance and cultural advantages. Also, the student will find easy access to Philadelphia and its museums, libraries, and similar facilities.

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*1. *The Professional Background Examination* — The Professional Background Examination is constructed, administered and evaluated by the Department of Education. As the name implies, it is designed to evaluate the candidate's knowledge of the teaching profession. This examination is given in conjunction with the course entitled "Seminar in Educational Foundations."

*2. *The General Culture Comprehensive Examination* — Every student working for a degree must take as part of the course entitled "Seminar in Humanities" *The General Culture Comprehensive Examination.* This examination evaluates the student's background in those areas which are commonly termed the "humanities."

EXPENSES

The charge for tuition in the Graduate Program is $20 per semester hour of credit.

Graduate students desiring housing facilities at the college during the summer sessions may procure such facilities at the regular rates listed in the official catalogue.

All fees are due and payable on the day of registration, after which the late fee is applicable.

Car registration is $1.00.

Identification Card is $1.00.

Graduate students are also required to pay any fees (activity fee, library fines, etc.) required of other summer school students.

All fees are subject to change without notice.

MUSIC FEES

Students in the music curriculum are subject to the schedule of fees listed below:

INSTRUCTION

Piano, Organ, Instrument or Voice
½ hour private lesson ..... $55.00 per semester

Instrument class or Ensemble (minimum class — six)
2 hours per week ..... $35.00 per semester

RENTALS

Any Band or Orchestra Instrument ..... $1.00 per week

PRACTICE TIME

Piano Room — 2 hours per day ..... $1.00 per week
(minimum charge — $3.00)

Organ Room — 2 hours per day ..... $1.50 per week
(minimum charge — $4.50)

Instrumental Room — 2 hours per day ..... $ .50 per week
(minimum charge — $1.50)

(NOTE: The lesson fees are in addition to the $20.00 semester hour credit fee.)

REFUNDS

1. No portion of the tuition fee shall be refunded if the student has attended one-third or more than one-third of the class periods scheduled during a given semester or session.
2. If a student withdraws from a course, for approved reasons, before one-third of the scheduled class periods have been completed, the student shall then be entitled to a refund of one-half of the tuition fees paid.
3. Refunds will not be made to students who are suspended or dismissed or to students who drop courses without the approval of the Director of Graduate Studies.
4. If a student withdraws completely from courses for which he registered without attending any classes, he will receive a refund of all but $10.
5. If a student enrolls for two or more classes, and drops one (or not all his classes) and does not attend the course from which he wishes to withdraw he will receive a full refund.

RESIDENCE REQUIREMENTS

All courses given by the Division of Graduate Studies are taught on this campus by members of the Graduate Studies faculty. Therefore, students in this graduate program should not expect to take off-campus or extension courses.

This college will accept in transfer only courses taken in residence at other approved graduate schools or courses taught by regular members of the full-time faculty of other approved graduate schools at off-campus centers.

TIME LIMIT

All requirements including transfer of credits for the graduate degree, i.e., Master of Education, must have been satisfied within a period of six years before the actual date of receiving the degree. In unusual cases, eg., prolonged illness, the Graduate Council may make minor exceptions. In no instance, however, should the student assume that such exceptions will be made routinely.

The existence of the six-year limit makes it imperative to settle, at the earliest possible date, details regarding the research report or thesis and similar matters.

REPORTS

Official reports are issued immediately after the termination of each semester for work taken during that semester. The student should consider these reports as an official record of his standing in the graduate program and should check these reports against grade requirements and other regulations. When consulting with faculty advisors, the student should have these reports at hand.

ABSENCES

Applicants for graduate courses should realize at the outset the importance of attending all classes. Because the Graduate Council realizes that emergencies may arise, however, a policy on absences has been constructed. Hardship cases will be considered individually.

For courses meeting once a week, the student is permitted a maximum of two absences during the semester. In no case should these absences be thought of as "cuts." They should be considered, rather, as allowances for emergency conditions.

No absences are permitted during the summer session.

The student is held fully responsible for all work required for courses taken. Absences from class, therefore, do not constitute a valid reason for exemption from course responsibilities. Students absent from examinations for valid reasons should confer with the professor concerned as early as possible in order to make up the examination.

CLASS HOURS

All classes for the graduate program are scheduled during the late afternoon, evening, Saturdays, and summer sessions. As enrollment warrants, the number of classes given during the regular academic year is adjusted accordingly. Most graduate courses, however, are given primarily during the summer sessions.

TRANSCRIPTS

Students wishing transcripts of graduate work at West Chester may obtain such transcripts by communicating directly with the Office of the Registrar. The regulations pertaining to undergraduate transcripts hold for the graduate program also, i.e., students should allow a minimum of one week in requesting transcripts; requests should be made in writing; and all pertinent information (full name, maiden name, curriculum, dates, etc.) should be given.

The cost is $1 per transcript. Checks or money orders should be made payable to the Commonwealth of Pennsylvania. Cash is not acceptable.

SUSPENSION OF CLASSES BECAUSE OF WEATHER

The official calendar for the Graduate Program lists the class meeting dates for each session. This calendar is distributed to faculty and posted on the official bulletin boards every semester.

All classes meet on these days, regardless of weather conditions. This policy has been instituted, however, with the understanding that students need not take undue risks in order to travel.

Students absent because of weather conditions must assume responsibility for all work missed.

PLACEMENT SERVICE

Every year the College Placement Service is notified of many positions of all types on all levels of instruction. Because many of these positions offer unusual opportunities for professional advancement, graduate students are encouraged to use the services of the Placement Office.

All students pursuing graduate work at West Chester are eligible for the use of limited services provided by the Placement Service. Students who have completed less than 15 semester credits have access to the listings of vacancies. Students who hold undergraduate degrees from West Chester and/or have completed 15 semester credits of graduate work are eligible for the full services of the Placement Service. The term "full service" includes registration, development of a complete set of credentials, and mailing of credentials to prospective employers.

There is no charge for the use of the Placement Service. Students wishing further information should visit the Placement Office. The office is open from 9:00 A.M. to 5:00 P.M. on weekdays and from 9:00 A.M. to 12 Noon on Saturdays.

OFFICE HOURS

The Graduate Office is located in Room 109 on the first floor of Anderson Hall. During the academic year, office hours are from 8:30 A.M. to 12:00 noon and from 1:00 P.M. to 5:00 P.M. daily, Monday through Friday. The office is open on the fourth Saturday morning of each month from 9:00 A.M. to 12:00 noon. Summer hours are from 8:00 A.M. to 12:00 noon and from 1:00 P.M. to 4:30 P.M.

FOR INFORMATION CALL —

WEST CHESTER 692 - 3210

EXTENSIONS 455, 456 and 457

WEST CHESTER STATE COLLEGE

WEST CHESTER, PENNSYLVANIA

APPLICATION FOR ADMISSIONS TO GRADUATE STUDY

(Please complete and return to Graduate Office)

INSTRUCTIONS: This application form and two official undergraduate transcripts should be filed with the Graduate School prior to registration for the term in which the applicant expects to enter. If the applicant plans to transfer graduate credits from another college or university, he should also submit two official transcripts of these courses. Notification of acceptance will be sent after all the required transcripts of previous college courses have been received and evaluated. Consult the current Bulletin of Graduate Studies for dates of the period of registration.

After this application form and transcripts have been submitted to the Graduate Office, the applicant should arrange for a personal interview with Director of Graduate Studies.

1. Name in full ....
   Last name First name Middle name

2. Maiden name .....
   Last name First name Middle name

3. Present address .....
   Street City Co. State Tele. No.

4. Permanent address .....
   Street City Co. State Tele. No.

5. Place of birth ..... Date of birth .....
   Month Day Year

6. Present position .....

7. When do you plan to begin graduate study at this College? .....

8. Are you planning to study full or part time? .....

9. What is your ultimate purpose (degree candidacy, certification, etc.) in taking graduate courses? .....

10. List the secondary school and all colleges in which you have enrolled:

Name of School	Location	Dates Attended	Date of Graduation	Degree
a. Secondary school				
b. Colleges or Universities Undergraduate Study				
c. Colleges or Universities Graduate Study				

Undergraduate Major Graduate Major

11. List any physical handicaps or health problems .....

.....

Will these affect your class attendance? ..... If so, to what extent?

.....

12. Teaching experience .....

Place ..... Dates ..... State ..... Co. .....

Position held or subjects taught .....

.....

.....

13. Have you ever been dismissed or disqualified from any other institution of higher learning? Yes ..... No ..... Institution .....

14. Are you now doing work in any other colleges or universities?

Yes ..... No ..... If your answer is yes, name the course .....

..... Institution .....

15. Name the teaching certificate (s) or administrative certificate (s), if any, you now hold: .....

Issued in what state? .....

16. Are you matriculated at another college or university .....

Name and Address of college or university .....

17. Do you expect to use G. I. benefits to help pay the costs of this program?

Yes ..... No .....

18. Give the name and address of three qualified persons who can be used as references.

Name	Address	Occupation
.....	.....	.....
.....	.....	.....
.....	.....	.....

Date Signature of Applicant

Remarks (To be filled by Dept. chairman) .....

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.....

.....

.....

Applicant interviewed by .....

Approved by ..... Dept. .....